ERP Implementation and Training
A Guide to Getting Your Business in Gear

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Nick Castellina
Executive Summary

As a complete and auditable system of record, Enterprise Resource Planning (ERP) has the ability to help organizations gain visibility into operations, communicate across geographic boundaries, streamline processes, promote efficiencies, manage demand, service customers, and cut costs. Truly, ERP has the ability to transform growing businesses into those that can perform on a larger stage. Of course, this all begins with selecting the right ERP. After selection, the most important actions that result in successfully utilizing ERP to its fullest include active participation in the implementation of the actual ERP solution and employee onboarding. This benchmark, based on 170 responses gathered between February and March 2012, from organizations that have already implemented ERP explores the best practices for integrating ERP into the organization’s business.

Best-in-Class Performance

Aberdeen used the following five key performance criteria to distinguish Best-in-Class companies:

- 22% reduction in operational costs as a result of ERP
- 17% improvement in profitability over the past two years
- 46% of employees exceed key performance metrics
- ERP projects came in 6% under budget
- ERP projects took 9% longer than expected

Competitive Maturity Assessment

Survey results show that the firms enjoying Best-in-Class performance shared several common characteristics, including:

- 84% elect a project manager for the ERP implementation process
- 81% use a staged implementation process in order to integrate feedback
- 53% measure the business benefits gained from ERP

Required Actions

In addition to the specific recommendations in Chapter Three of this report, to achieve Best-in-Class performance, companies must:

- Devise project timelines prior to implementation and keep them centrally managed
- Integrate ongoing feedback into the implementation process
- Identify key areas of need for employee training and tailor lessons effectively
Table of Contents

Executive Summary....................................................................................................... 2

Best-in-Class Performance.......................................................................................... 2
Competitive Maturity Assessment.............................................................................. 2
Required Actions......................................................................................................... 2

Chapter One: Benchmarking the Best-in-Class.................................................... 4

Business Context ....................................................................................................... 4
The Maturity Class Framework.................................................................................... 5
The Best-in-Class PACE Model.................................................................................. 6
Best-in-Class Strategies............................................................................................... 7

Chapter Two: Benchmarking Requirements for Success................................. 10

Competitive Assessment............................................................................................. 11
Capabilities and Enablers............................................................................................ 12

Chapter Three: Required Actions ......................................................................... 19

Laggard Steps to Success........................................................................................... 19
Industry Average Steps to Success .......................................................................... 19
Best-in-Class Steps to Success.................................................................................. 20

Appendix A: Research Methodology.......................................................................... 22
Appendix B: Related Aberdeen Research.................................................................. 24

Figures

Figure 1: Pressures in the ERP Implementation Process ..................................... 4
Figure 2: Strategic Actions of the Best-in-Class ...................................................... 7
Figure 3: Standardizing ERP.................................................................................... 8
Figure 4: ERP Selection Criteria ............................................................................ 9
Figure 5: Planning Ahead and Pushing Forward ................................................... 13
Figure 6: Assigning Resources and Internal Improvement ................................... 14
Figure 7: Changing the Project Plan and Employee Engagement ....................... 15
Figure 8: Shaping ERP ............................................................................................ 16
Figure 9: Monitoring Performance ......................................................................... 17
Figure 10: Third-party Consultants ......................................................................... 18
Figure 11: Selecting Services................................................................................... 18

Tables

Table 1: Top Performers Earn Best-in-Class Status.............................................. 5
Table 2: The Best-in-Class PACE Framework....................................................... 6
Table 3: The Competitive Framework .................................................................. 11
Table 4: The PACE Framework Key ..................................................................... 23
Table 5: The Competitive Framework Key ............................................................ 23
Table 6: The Relationship Between PACE and the Competitive Framework ... 23
Chapter One: Benchmarking the Best-in-Class

Business Context

Aberdeen’s report, *To ERP or Not to ERP: In Manufacturing, It Isn’t Even a Question* found that organizations with ERP are performing better than those without in inventory accuracy, the number of days it takes to close a month, internal schedule compliance, complete and on-time shipments, and more. Further, even Laggards are receiving quantifiable improvements in operating costs, administrative costs, inventory, internal schedule compliance, and complete on-time shipments as a direct result of their ERP implementation. Still, the study found that 26% had yet to implement ERP. If these figures are true, then why aren’t all organizations already using ERP?

Fifty-four percent (54%) of organizations indicated that they had not yet implemented ERP because of the internal effort required. While it is true that ERP can be a substantial undertaking, those organizations that were successful in implementing ERP, and are already reaping its benefits, can provide a guide for how to successfully navigate the pressures that have impacted them in the implementation process.

Now, according to the 170 organizations that have already implemented ERP that responded to Aberdeen’s *ERP selection, implementation, and training survey*, the number one pressure facing organizations in the ERP implementation process is a lack of internal resources (Figure 1). First, organizations may not have an IT staff that is capable of handling the commitment of implementing ERP. For these organizations, ERP delivered as Software as a Service (SaaS) may be a viable option because Aberdeen’s *SaaS and Cloud ERP Trends, Observations, and Performance 2011* report found that 38% were willing to consider SaaS ERP because they have limited IT resources. Beyond that, organizations are worried about the commitment that employees will have to make to the implementation, taking them away from their daily responsibilities.

Figure 1: Pressures in the ERP Implementation Process

<table>
<thead>
<tr>
<th>Pressure</th>
<th>Percentage of Respondents, n = 170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of internal resources / Existing resources don't have time to be away from their daily responsibilities</td>
<td>41%</td>
</tr>
<tr>
<td>Need to reduce the costs of the implementation process</td>
<td>35%</td>
</tr>
<tr>
<td>Lack of needed functionality in ERP software</td>
<td>33%</td>
</tr>
<tr>
<td>Must receive a return on investment as quickly as possible</td>
<td>31%</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, March 2012
Next, 35% need to reduce the costs of the implementation process. ERP can already be a substantial financial commitment. For those that are implementing ERP for the first time, this investment could be one of the first of this size, and an important step for the organization. Organizations need to effectively manage the costs that go beyond the ERP software itself. It is important to have a defined project plan and stick to it, in order to minimize unforeseen costs.

Thirty-three percent (33%) cite the lack of needed functionality in ERP software. If the ERP that is selected does not have the functionality that the organization needs to run effectively, it is useless. Either the organization is not going to get the most benefit out of the software or it is going to need to make another investment to achieve that functionality. This pressure proves how important the ERP selection process and the ability to identify the organization’s needs are.

Lastly, 31% must receive a return on investment as quickly as possible. Again, an investment in ERP can be substantial. Growing organizations are going to want to see a return on that investment as quickly as possible in order to prove that that money should not have been spent on something else. Efficiently implementing ERP, engaging employees, and utilizing the available functionality is essential to achieving this return as soon as possible.

The Maturity Class Framework
Aberdeen used five key performance criteria to distinguish the Best-in-Class from Industry Average and Laggard organizations (Table 1). The choice of metrics was based on factors that measure the success of the implementation project and the impact that ERP has had on the organization and its employees. The first two Best-in-Class criteria measure the ability to keep costs low and maintain project timelines. Next, since ERP should help employees to do their jobs more effectively, Aberdeen measured the percentage of employees in these organizations that exceeded their pre-defined performance metrics in annual reviews. This measured the impact of ERP training. Further, to show how successful the entire process was, Aberdeen measured the reduction in operational costs that these organizations have determined is as a direct result of ERP. Lastly, since the ultimate goal of ERP is driving the organization towards profitability, Aberdeen measured these organizations change in profitability over the past two years. Combining these metrics provides a good view of what an organization with a Best-in-Class ERP implementation looks like.

Table 1: Top Performers Earn Best-in-Class Status

<table>
<thead>
<tr>
<th>Definition of Maturity Class</th>
<th>Mean Class Performance</th>
</tr>
</thead>
</table>

“Good preparation and project management is essential in delivering ERP in a predictable, well communicated manner.”

~ IT, Midsize Retail Organization
Definition of Maturity Class | Mean Class Performance
--- | ---
**Best-in-Class:** Top 20% of aggregate performance scorers | ▪ 22% reduction in operational costs as a result of ERP  
▪ 17% improvement in profitability over the past two years  
▪ 46% of employees exceed performance metrics in their annual revues  
▪ 94% of previously defined budget spent on ERP implementation  
▪ ERP project completed 9% later than planned

**Industry Average:** Middle 50% of aggregate performance scorers | ▪ 9% reduction in operational costs as a result of ERP  
▪ 5% improvement in profitability over the past two years  
▪ 31% of employees exceed performance metrics in their annual revues  
▪ 109% of previously defined budget spent on ERP implementation  
▪ ERP project completed 13% later than planned

**Laggard:** Bottom 30% of aggregate performance scorers | ▪ 2% increase in operational costs as a result of ERP  
▪ 1% improvement in profitability over the past two years  
▪ 16% of employees exceed performance metrics in their annual revues  
▪ 143% of previously defined budget spent on ERP implementation  
▪ ERP project completed 35% later than planned

**The Best-in-Class PACE Model**
Successful ERP implementations require a combination of strategic actions, organizational capabilities, and enabling technologies that are summarized in Table 2.

**Table 2: The Best-in-Class PACE Framework**

<table>
<thead>
<tr>
<th>Pressures</th>
<th>Actions</th>
<th>Capabilities</th>
<th>Enablers</th>
</tr>
</thead>
</table>
| ▪ Lack of internal resources / Existing resources don’t have time to be away from their daily responsibilities | ▪ Standardize business processes  
▪ Integrate training with daily business processes | ▪ Phased rollout of ERP  
▪ ERP plan devised before selection  
▪ Project manager for ERP implementation process  
▪ ERP onboarding process to train new users efficiently  
▪ Quantifiable business benefits resulting from overall implementation of ERP are measured  
▪ Process for early warning for changes in ERP project scope  
▪ Documented and shared ERP training materials | ▪ Rapid implementation package from software vendor  
▪ 24x7 phone support from software vendor  
▪ Implementation templates  
▪ Pre-defined best practice workflows |

Source: Aberdeen Group, March 2012
**Best-in-Class Strategies**

In order to counter the pressures listed above, Best-in-Class organizations are embarking on a set of strategies devised to facilitate the ERP implementation process (Figure 2). While what really matters is how effective the organization is at executing these strategies, there is some differentiation between how the Best-in-Class and all others (the Industry Average and Laggards combined) are selecting these strategies. Of course, the most widespread strategy for both is standardizing business processes. Standardizing processes allows organizations to define best practices and enforce them. They can then integrate these practices into their ERP system. This is also essential in selecting the ERP that is most suited to their organization.

**Figure 2: Strategic Actions of the Best-in-Class**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Best-in-Class</th>
<th>All Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardize business processes</td>
<td>76%</td>
<td>76%</td>
</tr>
<tr>
<td>Integrate training with daily business processes</td>
<td>41%</td>
<td>35%</td>
</tr>
<tr>
<td>Assess areas of the business that need to be improved prior to implementation</td>
<td>35%</td>
<td>38%</td>
</tr>
<tr>
<td>Form senior management steering committee to monitor and assess project plan</td>
<td>29%</td>
<td>41%</td>
</tr>
<tr>
<td>Drive repeatable behavior for employees</td>
<td>29%</td>
<td>22%</td>
</tr>
</tbody>
</table>

*Source: Aberdeen Group, March 2012*

Best-in-Class organizations are more likely to be integrating training with daily business processes. By doing this, these organizations are minimizing the amount of time that these employees are away from their day to day job. This method of training by doing is more effective at engaging employees and ensuring that they learn the process. This is why the Best-in-Class are also more likely to drive repeatable behavior for employees. By performing the same tasks over and over again, the best practices are top of mind for employees which will lead to the organization getting the biggest benefits out of their ERP solution.

On the other hand, the Industry Average and Laggard companies are more likely to be focusing on strategies that take place prior to the implementation process. First, they are assessing areas of the business that need to be improved prior to implementation. This is in hopes of both improving those processes internally as well as selecting an ERP solution.

"Commitment to the implementation starting from the top executive levels and transmitted to the middle and basic management levels of the company is essential, along with a good implementation plan that everybody is able to understand, to follow and meet on time."

~ IT, Small Industrial Equipment Manufacturer
that can help those processes. As an extension of this, 41% of all others form senior management steering committees to monitor and assess the project plan. Aberdeen’s *Project Management: Putting the Pieces Together* report illustrates the benefits of a well-executed project plan. This steering committee helps to ensure that the ERP implementation is aligned with corporate objectives and runs as smoothly as possible.

### Aberdeen Insights — Strategy

The ERP selection process is not something that should be taken lightly. Careful consideration must take place to ensure that the ERP selected aligns with the ultimate goals of the organization. For organizations with many business units, it is essential that standards are made. Either one specific solution should be operated in all locations, or if multiple solutions are being used, they must have the potential to integrate with one another. Lacking to standardize defeats the purpose of having an end-to-end business solution such as ERP. Seventy-one percent (71%) of the Best-in-Class have standardized selection criteria for ERP across the enterprise (Figure 3). Further, Best-in-Class organizations 2.5 times as likely as all others to have a multi-tiered ERP strategy. In these organizations there is a corporate standard ERP with a compatible second tier ERP to support local business models. This second tier provides only the functionality that is needed and can be implemented more quickly to get these business units up and running.

#### Figure 3: Standardizing ERP

<table>
<thead>
<tr>
<th></th>
<th>Percentage of Respondents, n = 170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardized selection criteria for ERP implementation across the enterprise</td>
<td>Best-in-Class: 71%, Industry Average: 61%, Laggard: 43%</td>
</tr>
<tr>
<td>Multi-tiered ERP strategy with corporate standard, second tier ERP to support local business models</td>
<td>Best-in-Class: 48%, Industry Average: 22%, Laggard: 14%</td>
</tr>
</tbody>
</table>

*Source: Aberdeen Group, March 2012*
But what really is important when selecting ERP? Respondents were asked to choose their top four selection criteria used when selecting ERP (Figure 4). It is not necessarily all about cost. While total cost of ownership is extremely important, what matters most is the functionality available in a specific ERP. If the needed functionality is available, there really isn’t any need to implement the ERP because the business functions that could be improved by a well aligned ERP solution are not being integrated. Adding functionality that is not currently available in the existing ERP will cost more. It is better to seek out an ERP that includes the needed functionality.

**Figure 4: ERP Selection Criteria**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functionality</td>
<td>53%</td>
</tr>
<tr>
<td>Total cost of ownership</td>
<td>51%</td>
</tr>
<tr>
<td>Ease of use</td>
<td>37%</td>
</tr>
<tr>
<td>Must be an integrated suite rather than multiple point solutions</td>
<td>34%</td>
</tr>
<tr>
<td>Integration technologies and capabilities</td>
<td>29%</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, March 2012

Further proving the importance of employee training for ERP is the fact that ease of use is the third leading selection criteria. If employees can pick up ERP quickly and use it effectively the organization will see greater benefits.

Lastly, organizations in the ERP selection process are looking to ensure that the solution provided truly gives them a full picture of the business. Thirty-four percent (34%) of respondents indicate that it must be an integrated suite rather than multiple point solutions. Of course, there may be some existing technology that the organization is married to. In that case, it is important to consider the integration capabilities of a potential ERP.

In the next chapter, we will see what the top performers are doing to achieve these gains.
Chapter Two:
Benchmarking Requirements for Success

The selection of ERP software and integration with internal business processes play a crucial role in the ability to use ERP to streamline processes and improve operations.

Case Study — Eemax, Inc.

Eemax, Inc. is a manufacturer of tankless water heaters. Founded in 1988, the company took advantage of the fact that there is a wide variety of climates and temperatures in the United States, but at the time there were no tankless water heaters to serve the different climates throughout the country. Since then, the organization has added a line of residential electric tankless heaters to its portfolio of products to support its commercial operations. Today the organization is the #1 United States brand of electric tankless water heaters.

Today, Aberdeen is finding that Chief Financial Officers are having an increasing amount of influence in the ERP buying decision. For Eemax CFO, David Brault, this was certainly the case. When he arrived at Eemax, the organization was running on legacy software that did not have the functionality needed to effectively run and grow the organization. After making the decision that a more robust ERP solution was needed, the company decided to hire outside consultants to assist in the selection process.

These outside consultants helped Eemax create a list of ERP vendors to consider, devise selection criteria, draft an RFP, and ultimately select an ERP. To Eemax, functionality was most important. As a relatively small company, but one that manufacturers specified products, the ERP needed to be able to handle some complexities. The organization also has an active marketing organization, so the company needed a certain amount of customer interfacing capabilities. Eemax has one main location, but they have independent sales people throughout the country that need to be able to interact with the system. They needed to be able to integrate distributors and independent manufacturing representatives. These reasons shaped the criteria that the resulting ERP was selected on.

According to Brault, “We found that some on-premise solutions had difficulty connecting to the outside world.” Eventually, Eemax selected a SaaS-based ERP solution.

After the selection process, the implementation process began. The software chosen embraced an implementation methodology that, according to the software vendor, “Adapts and combines leading / guiding practices and business processes with the product features implemented providing targeted, measurable, and actionable feedback throughout each implementation stage. This method is process focused, deliverables driven, mitigating risk through repeatable processes.”

Fast Facts

√ 55% of the Best-in-Class train new employees on ERP after the initial stages of implementation

√ Best-in-Class organizations are 66% more likely than all others to actively participate in an ERP users group
Case Study — Eemax, Inc.

Acting as the project manager, Brault allocated responsibilities to a team involved with the implementation process. Someone in each functional area was responsible with ensuring things went smoothly. They needed to fill out questionnaires and get data migrated. Brault considered the data conversion process “very easy.” As for employee training, this was handled online first, with later online classes to cement what they had learned. Going forward all employees start with online training.

According to Brault, the overall project “came in right on budget, no surprises.” The biggest benefits have been, “reduced processing time as far as sales and production orders are concerned - these automated process save time.” The outside sales people can submit expense reports more easily, can get paid quicker, and “the company becomes more profitable because they can go out and sell.” On the back office side, financials are much easier to process. Brault says, “Making changes to transactions is incredibly easy, we can drill down and make changes within seconds.” Clearly, Eemax’s ERP implementation process has been successful and is currently paying dividends towards the organization’s quest for profits.

Competitive Assessment

Aberdeen Group analyzed the aggregated metrics of surveyed companies to determine whether their performance ranked as Best-in-Class, Industry Average, or Laggard. In addition to having common performance levels, each class also shared characteristics in five key categories: (1) process (the approaches they take to execute daily operations); (2) organization (corporate focus and collaboration among stakeholders); (3) knowledge management (contextualizing data and exposing it to key stakeholders); (4) technology (the selection of the appropriate tools and the effective deployment of those tools); and (5) performance management (the ability of the organization to measure its results to improve its business). These characteristics (identified in Table 3) serve as a guideline for best practices, and correlate directly with Best-in-Class performance across the key metrics.

Table 3: The Competitive Framework

<table>
<thead>
<tr>
<th></th>
<th>Best-in-Class</th>
<th>Average</th>
<th>Laggards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Process</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERP plan devised before selection</td>
<td>85%</td>
<td>63%</td>
<td>40%</td>
</tr>
<tr>
<td>Phased rollout of ERP</td>
<td>59%</td>
<td>53%</td>
<td>43%</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project manager for ERP implementation process</td>
<td>84%</td>
<td>86%</td>
<td>58%</td>
</tr>
<tr>
<td>ERP onboarding process to train new users efficiently</td>
<td>63%</td>
<td>31%</td>
<td>19%</td>
</tr>
</tbody>
</table>
### Capabilities and Enablers

Based on the findings of the Competitive Framework and interviews with end users, Aberdeen analyzed how Best-in-Class companies leverage a range of solutions and strategies across the scope of process, organization, knowledge management, technology, and performance monitoring to enhance the ERP implementation process. By learning how these leaders execute these strategies to produce business capabilities, other organizations can guide themselves towards success.

#### Process

A successful ERP implementation project requires preparation. No matter the organization’s size it is important to lay out the goals of and the project plan for ERP in order to help to ensure the project stays its course. This plan can also be useful in selecting the right ERP. Best-in-Class organizations are 55% more likely than all others to devise their ERP plan before selection (Figure 5). Having this plan laid out ahead of time will allow organizations to carefully consider the results of actions and fine tune their strategy before jumping in. This will lead to a more efficiently managed project. Additionally, this will provide the organization with a good opportunity to align business processes with best practices and ensure cohesion with the ERP that is selected. Seventy-one percent (71%) of the Best-in-Class standardize business processes to ensure that they are aligned with the ERP implementation in comparison to 52% of all others.

"There are three critical success factors. 1. Complete support from stakeholders including top management 2. Little or no customization. Change / tweak processes to meet ERP’s process / requirement 3. Business champions to ensure successful implementation, training and ongoing usage."

~CIO, Small Professional Services Firm
Once the project plan has been laid out and processes have been aligned, it is time to put the ERP implementation into action. Fifty-nine percent (59%) of the Best-in-Class are using phased rollouts of ERP. Growing organizations are selecting the functionality that is most important to the growth of their business right now, and implementing that functionality first. These organizations can also select the business units that are most important to them, and implement there first. This strategy also allows these organizations to learn as the implementation process goes on and fine-tune and adjust their project plan as needed.

As the implementation process draws closer to completion, employees are going to need to be trained. Since knowledge of all available ERP functionality is not necessary for all employees, this training should be tailored accordingly. By minimizing these training materials to the bare-essentials, employees are more able to focus on what is most important and begin to use ERP actively. Best-in-Class organizations are 27% more likely than all others to have job-role specific training for ERP.

**Organization**

For a project as important to the success of the organization as an ERP implementation, it is important that someone takes ownership of the project and tries to reduce the effects of having too many cooks in the kitchen. This employee will guide the project toward completion, be accountable for the results, and ensure that the project is completed to plan. Eighty-four percent (84%) of the Best-in-Class assign a project manager for the ERP implementation process. This employee is not on his or her own, however. Technology such as ERP, which can transform the organization, requires the input of the wide range of job roles that it touches. Therefore, the project manager must involve other employees or other groups of employees to complete tasks and shape the ERP.
implementation. Seventy-four percent (74%) of the Best-in-Class assign dedicated resources throughout the ERP implementation project.

**Figure 6: Assigning Resources and Internal Improvement**

![Figure 6: Assigning Resources and Internal Improvement](image)

Source: Aberdeen Group, March 2012

Of course, employee engagement is a crucial part of the ERP implementation process. To get the most out of ERP, users need to know its capabilities, and understand how to use it. Showing employees these benefits leads to greater "buy-in." Further, if new employees come into the organization and they are not trained on ERP, eventually ERP use will diminish and the organization will have made a wasted investment. Best-in-Class organizations are 2.3 times as likely as all others to have an ERP onboarding process to train new users efficiently.

As time goes on, it will become apparent that there are ways in which the ERP solution can be improved. Only by continuously improving can organizations truly grow. Assigning internal resources to manage change, reconfiguration, and customization of ERP is essential to fine-tuning ERP and receiving the highest possible benefits. Sixty-nine percent (69%) of the Best-in-Class have implemented this capability. This is essential for creating a dynamic project plan that can react to change.

**Knowledge Management**

As stated above, having a dynamic project plan is essential to producing superior results. Decision-makers can react to new information and fine tune the project plan to fit the organization’s needs. Having a static plan would be a mistake because actions that were planned prior to the process going into motion are not aligned with the most realistic view of what has happened with the project. Eighty-one percent (81%) of the Best-in-Class are using a staged process where adjustments are made to the implementation plan throughout the process (Figure 8). This is in comparison to 60% of all others. One source of the information used when adjusting plans may be feedback from employees. These are the people that know best which functionality is needed and how ERP will impact their day.
To day job. As such, Best-in-Class organizations are over twice as likely to integrate feedback from ongoing employee training into the project plan.

**Figure 7: Changing the Project Plan and Employee Engagement**

Once ERP has been implemented, the key element of getting the greatest benefits out of the software is the ability of employees to actually use it. Training is one thing, but if the lessons are not truly learned and instead glossed over, these employees are not going to be actually using the software effectively. Best-in-Class organizations are over three times as likely to have a certification program for ERP users. Employees that pass this program have proven that they know how to use ERP and will use it effectively. Of course, they may sometimes need a refresher. For this reason, 69% of the Best-in-Class have documented and shared ERP training materials.

**Technology**

There are many ways in which the ERP software vendor can facilitate the ERP implementation process. For those organizations that are growing and need to gain the benefits of ERP as quickly possible, there are rapid implementation options to speed up the process (Figure 8). These options are also useful for those organizations using a multi-tiered ERP strategy. Aberdeen’s *SaaS and the Multi-tiered ERP Strategy* report explained how organizations that quickly want to get new business units up and running are often opting to take a tiered ERP approach where the new business unit is rapidly implementing an ERP compatible with the corporate standard. This also helps to keep unforeseen costs to a minimum. To these ends, Best-in-Class organizations are almost three times as likely to have used a rapid implementation package from their software vendor.

**Fast Fact**

- 48% of Best-in-Class organizations have a multi-tiered ERP strategy with a corporate standard and a second tier ERP to support local business models.
Of course, whether using a rapid implementation package or not, there are other ways in which ERP vendors are facilitating the implementation process. Best-in-Class organizations are 59% more likely than all others to be using implementation templates. This helps to identify which existing data is needed, where it needs to be entered, and how ERP is going to integrate with other software and business processes. These implementation templates are useful for organizations going through their first ERP implementation, and those with limited IT resources. Additionally, Best-in-Class organizations are 55% more likely than all others to use pre-defined best practice workflows. This ensures that business processes are aligned with ERP and provides standard best practices for the organization to follow.

Of course, it is important for the organization to continue to work with its software vendor after the implementation is completed. Issues may arise that the IT department cannot answer on their own. The vendor also needs to be available to help the organization optimize their ERP. Over 40% of all organizations have 24x7 phone support from their software vendor.

**Performance Management**

In order to optimize ERP and related business processes, the organization must constantly monitor performance. If an organization is going to deploy ERP in phases, or using a stage-gate approach it can benefit from using the lessons it has learned to alter the project plan. Best-in-Class organizations are 141% more likely than all others to have a process for early warning for changes in ERP project scope (Figure 9). This will minimize scope creep and rising costs. ERP can be further optimized and the project manager can reign in the process.
Additionally, it is important to continually monitor the ability of employees to effectively use ERP. If the employees are uneducated, they may neglect to use ERP or not get the full use out of it. Best-in-Class organizations are over four times as likely as all others to measure the ERP aptitude of employees. This allows training to be altered, and further training materials to become available.

Lastly, in order truly get the most out of ERP, its benefits must be measured. From there, the organization can identify the functionality of ERP that is providing the most benefit and find ways to increase the benefit of functionality that is being misused or tailored incorrectly. Best-in-Class organizations are over twice as likely to measure quantifiable business benefits resulting from the overall implementation of ERP. They are also 124% more likely than all others to measure the ROI for these projects. Those organizations that do measure these benefits are seeing substantial improvements in many categories as a direct result of ERP that are helping them to pass competitors and grow profitability (see sidebar).

**Aberdeen Insights — Technology**

Some organizations need help in the ERP selection and implementation process. This is especially beneficial for those organizations that are implementing ERP for the first time. Over half of all respondents solicit third-party support during the ERP implementation process. This support can have a huge effect on the ultimate success of the ERP implementation. This support can include analysis of business processes, ERP selection, system implementation and configuration, software customization and integration, training, IT staffing, and implementation auditing. These tools facilitate the ERP project and help to produce greater benefits.

**Fast Facts**

Best-in-Class organizations are reporting the following benefits as a direct result of ERP:

- **58%** improvement in inventory turns, vs. **22%** for all others
- **20%** reduction in administrative costs, vs. **8%** for all others
- **19%** reduction in inventory, vs. **8%** for all others
- **19%** improvement in internal schedule compliance, vs. **12%** for all others
- **20%** improvement in cycle time, vs. **9%** for all others

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**Figure 9: Monitoring Performance**

![Monitoring Performance Chart](chart.png)

Source: Aberdeen Group, March 2012

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Just as it is important to know what to look for when selecting an ERP, it is also important to know what to look for when selecting services. Best-in-Class organizations are less likely than all others to be selecting services based solely on cost (Figure 11). Local support, global capabilities, and vendor references are important, but where the Best-in-Class are differentiating themselves in the selection of services is in choosing based on the relationship of the services firm with the vendor. If a firm has a good relationship with the ERP software vendor, that firm will probably have the knowledge of the software to best help in its implementation. By partnering these firms with the software vendor, the organization can get the attention they need to implement successfully.

Figure 11: Selecting Services

Source: Aberdeen Group, March 2012
Chapter Three: Required Actions

Whether a company is trying to move its performance in ERP implementation and training from Laggard to Industry Average, or Industry Average to Best-in-Class, the following actions will help spur the necessary performance improvements:

**Laggard Steps to Success**

- **Devise an ERP plan before selection.** Having a well thought out plan helps to eliminate scope creep and keep costs low. It also helps to identify the most important criteria that the organization should consider when selecting an ERP. Having a well-defined project plan also provides the organization with an opportunity to build in contingency plans in case changes need to be made. ERP implementation is an important undertaking that can transform the business. It is not something that should be jumped into without careful consideration. Eighty-five percent (85%) of the Best-in-Class are devising their ERP plans before selection compared to only 40% of Laggards.

- **Implement a process for early warning of changes in ERP project scope.** Of course, no matter how well thought out a plan is, there is always the potential for things to fall apart. Scope creep is dangerous in ERP projects because the additional costs can be substantial and extended projects can tie up internal resources for longer than the company can really afford. If the goal is to implement ERP to streamline processes so that the company can grow while additional resources are being obtained, scope creep will diminish this benefit. Decision-makers need to be warned as early as possible of any changes so that they can right ship. Only 17% of Laggards have this capability, which is less than a third of the 65% of the Best-in-Class that have it.

- **Take advantage of pre-defined best practice workflows.** It's safe to say that in Laggard organizations, existing processes are not perfect. These organizations have a lot to gain by utilizing the best practice workflows provided by their ERP vendor. This allows the organization to emulate the practices used by their better performing peers. Best-in-Class organizations are 134% more likely than Laggards to take advantage of this opportunity.

**Industry Average Steps to Success**

- **Incorporate feedback from employee training.** Best-in-Class organizations are 91% more likely that the Industry Average to utilize employee feedback from training into the project planning. Who better to know how ERP is going to impact operations than those that are going to be interacting with it? This allows the
organization to identify needed functionality, alter operations, and fine-tune the project plan.

- **Provide a process for ERP onboarding for new employees.** It should go without saying that leaving employees in the dark when it comes to how to actually use ERP is not a good strategy. Still, 69% of the Industry Average do not have a training program to onboard new ERP users efficiently. These users are not going to be able to make the most out of available functionality and, as a result, the organization will not attain the full benefits of ERP.

- **Measure the benefits gained from ERP.** It is often said that "you can't manage what you can't measure." By measuring the benefits of ERP, organizations can determine which functionality is really helpful, how well employees are utilizing the software, and identify where the selected solution is lagging. This leads to continuous improvement of the ERP software itself. The Industry Average are barely half as likely as the Best-in-Class to measure quantifiable benefits gained from ERP software.

### Best-in-Class Steps to Success

- **Certify ERP users.** While training is important for ERP users, it is equally important to ensure that these lessons are actually absorbed by employees. Before jumping in and using ERP, employees must be certified. This ensures correct usage and bigger benefits for the organization. While the Best-in-Class are over three times as likely to have ERP certification programs, only 25% actually have this capability.

- **Provide job-role specific training.** Not every ERP user in the organization is going to be using ERP in the same way. Therefore, individual training must be tailored to the needs of those individual training. Thus, ERP training must be job-role specific. The result is more focused curriculum leading to skilled usage. Best-in-Class organizations are only 27% more likely than all others to tailor their training programs.

- **Implement ERP in phases.** A phased approach to ERP allows organizations to focus on the functionality that is most important to them in the business units that need it the most. It also gives the organization the ability to adjust the project plan on the fly. By doing this the organization can receive the benefits of ERP as quickly as possible. Fifty-nine percent (59%) of the Best-in-Class are doing this compared to 53% of the Industry Average.

### Fast Facts

What adds the most value to ERP after it has been implemented?

- **√ 40%** continued deployment and expansion of ERP
- **√ 24%** technical support
- **√ 20%** updates and support packages
- **√ 10%** continued access to training by vendor
- **√ 7%** access to software development services

"Success is dedicated employees with ERP knowledge from previous employment. Failure is poor follow-through and lack of training."

~ Manager, Midsize Aerospace and Defense Company
ERP implementations are not something to be taken lightly. The size of the benefits that can be gained from a successful ERP implementation are enough to provide a springboard for growing organizations to jump ahead of their competitors. But these benefits will only be maximized by an effective ERP selection and implementation process. Choosing the right ERP then guiding the organization through the implementation process using the best practices listed above will help to hasten implementation times and keep costs low. Additionally, a well-tuned employee training program will ensure "buy-in" and increase utilization. By taking advantage of these best practices, organizations can put their ERP into place and begin reaping its benefits towards future profits.
Appendix A: Research Methodology

Between February and March 2012, Aberdeen examined the use, the experiences, and the intentions of 170 companies that have implemented ERP. The online survey was supplemented with interviews with select survey respondents, gathering additional information on ERP selection, implementation, training, consulting, and results.

Responding enterprises included the following:

- **Job title:** The research sample included respondents with the following job titles: C-Level (19%), EVP / SVP / VP / GM (12%), Director (17%), Manager (33%), Staff (4%) and other (15%).

- **Department / function:** The research sample included respondents from all departments and functions including finance / administration (7%), IT (33%), corporate management (14%), business development (7%), logistics / supply chain (10%), and operations (5%).

- **Industry:** The research sample included respondents from a wide range of industries lead by manufacturing (36%), technology (15%), professional services (14%), logistics (8%) and retail (8%).

- **Geography:** The majority of respondents (54%) were from North America. Remaining respondents were from the Asia-Pacific region (16%), Europe (22%), Latin America (4%), the Middle East (2%), and Africa (2%).

- **Company size:** Twenty-seven percent (27%) of respondents were from large enterprises (annual revenues above US $1 billion); 40% were from midsize enterprises (annual revenues between $50 million and $1 billion); and 33% of respondents were from small businesses (annual revenues of $50 million or less).

- **Headcount:** Forty percent (40%) of respondents were from large enterprises (headcount greater than 1,000 employees); 34% were from midsize enterprises (headcount between 100 and 999 employees); and 26% of respondents were from small businesses (headcount between 1 and 99 employees).

**Study Focus**

Responding executives completed an online survey that included questions designed to determine the following:

- The pressures that faced them in their ERP selection, implementation, and training processes
- The selection criteria used for ERP
- The degree to which they are using consultants
- Capabilities, such as utilizing a project manager, that facilitate the implementation process
- The degree to which they were able to control costs and maintain the project timeline
- The ultimate benefits received from ERP

The study aimed to identify emerging best practices for ERP implementations, and to provide a framework for organizations undergoing new ERP implementations to learn from their peers.
Table 4: The PACE Framework Key

<table>
<thead>
<tr>
<th>Overview</th>
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<tbody>
<tr>
<td>Aberdeen applies a methodology to benchmark research that evaluates the business pressures, actions, capabilities, and enablers (PACE) that indicate corporate behavior in specific business processes. These terms are defined as follows:</td>
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<td><strong>Pressures</strong> — external forces that impact an organization’s market position, competitiveness, or business operations (e.g., economic, political and regulatory, technology, changing customer preferences, competitive)</td>
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<td><strong>Actions</strong> — the strategic approaches that an organization takes in response to industry pressures (e.g., align the corporate business model to leverage industry opportunities, such as product / service strategy, target markets, financial strategy, go-to-market, and sales strategy)</td>
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<tr>
<td><strong>Capabilities</strong> — the business process competencies required to execute corporate strategy (e.g., skilled people, brand, market positioning, viable products / services, ecosystem partners, financing)</td>
</tr>
<tr>
<td><strong>Enablers</strong> — the key functionality of technology solutions required to support the organization’s enabling business practices (e.g., development platform, applications, network connectivity, user interface, training and support, partner interfaces, data cleansing, and management)</td>
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</table>

Source: Aberdeen Group, April 2012

Table 5: The Competitive Framework Key

<table>
<thead>
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<th>Overview</th>
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<td>The Aberdeen Competitive Framework defines enterprises as falling into one of the following three levels of practices and performance:</td>
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<td><strong>Best-in-Class (20%)</strong> — Practices that are the best currently being employed and are significantly superior to the Industry Average, and result in the top industry performance.</td>
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<tr>
<td><strong>Industry Average (50%)</strong> — Practices that represent the average or norm, and result in average industry performance.</td>
</tr>
<tr>
<td><strong>Laggards (30%)</strong> — Practices that are significantly behind the average of the industry, and result in below average performance.</td>
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In the following categories:
- **Process** — What is the scope of process standardization? What is the efficiency and effectiveness of this process?
- **Organization** — How is your company currently organized to manage and optimize this particular process?
- **Knowledge** — What visibility do you have into key data and intelligence required to manage this process?
- **Technology** — What level of automation have you used to support this process? How is this automation integrated and aligned?
- **Performance** — What do you measure? How frequently? What’s your actual performance?

Source: Aberdeen Group, April 2012

Table 6: The Relationship Between PACE and the Competitive Framework

<table>
<thead>
<tr>
<th>PACE and the Competitive Framework – How They Interact</th>
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<tbody>
<tr>
<td>Aberdeen research indicates that companies that identify the most influential pressures and take the most transformational and effective actions are most likely to achieve superior performance. The level of competitive performance that a company achieves is strongly determined by the PACE choices that they make and how well they execute those decisions.</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, April 2012
Appendix B: Related Aberdeen Research

Related Aberdeen research that forms a companion or reference to this report includes:

- **Project Management: Putting the Pieces Together**; March 2012
- **ERP’s Impact on Risk and Change Management**; January 2012
- **SaaS and Cloud ERP Trends, Observations, and Performance 2011**; December 2011
- **SaaS and the Multi-tiered ERP Strategy**; November 2011
- **Turning Data Growth into Business Growth: ERP and BI in the SME**; October 2011
- **ERP’s Impact on Finance Executives: Visibility Leads to Stability**; October 2011
- **ERP in SME: Setting the Stage for Growth**; September 2011
- **To ERP or Not to ERP: In Manufacturing, It Isn’t Even a Question**; April 2011
- **Case Study: ERP and BI Put Business Problems to Bed**; June 2011

Information on these and any other Aberdeen publications can be found at www.aberdeen.com.

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