Mention Enterprise Resource Planning (ERP) and even the most capable managers can get anxious. Implementing an ERP solution is the largest, most complex technology effort most public sector organizations will ever attempt. It will disrupt the status quo and change the way the organization conducts most of its core business processes. Plus, ERP projects are notorious for frequent extensions in timeline and sizable budget overruns. Consider that three out of four public sector organizations participating in this study extended their ERP implementation timeline while two out of three came in over budget. Given these numbers, why then are so many public sector organizations currently evaluating ERP options?

Because, properly implemented, an ERP system can yield huge rewards. It has the potential to deliver significant cost savings, boost productivity and position an organization to build on initial efficiency gains. Just the things public sector entities are under pressure to deliver given huge budget shortfalls. No doubt, ERP enables smarter management but organizations should be careful in their due diligence. That's why we undertook a study of public sector organizations that have already implemented an ERP solution or are implementing one now. Their lessons learned and front-line insights into the implementation process are invaluable for any public sector organization exploring an ERP option.

Key Findings: Prudent Planning and Preparation are Critical Success Factors
Most of the public sector organizations polled gave similar reasons for exploring an ERP solution. They need to replace legacy information technology (IT) systems that lack needed functionality, flexibility, and, in many cases, can no longer be supported. Nearly every stakeholder cited the need for accurate, timely and overall better information for day-to-day decision-making and longer-term strategic planning. Many public sector organizations have already completed their implementation and their applications are currently operational, one organization is in the exploration and selection phase of the ERP lifecycle process, one organization is implementing an ERP, and one organization's ERP project is currently stalled. Forty-five ERP stakeholders responded to the online survey over a four-week period. Seventy-two percent of survey respondents indicated their organizations had already completed implementation and the ERP is currently operational. For additional demographic information about research participants, please see the Appendix.

1 This research study was conducted by EquaTerra Inc. In February 2011, KPMG LLP (US), KPMG Holdings Limited (UK) and KPMG International acquired the business and subsidiaries of advisory firm EquaTerra Inc.
sector IT environments – typically a mash-up of disparate, non-integrated systems – simply can’t provide this data.

Public sector organizations also shared similar implementation experiences. Eighty-six percent of respondents reported their organization did not complete the ERP project within the original timeframe. The length of delay ranged from six months to more than a year, with roughly a third of total respondents falling into each time slot – six months/a year/more than a year. While some organizations blamed the extension on an unrealistic initial timeline, only 15 percent reported a timeline of less than one year. Thirty-nine percent reported an original timeline of two years and up.

The most commonly cited causes for a slipping timeline fall into four categories: lack of adequate preparation, lack of the knowledge and experience needed to ask the right questions, inability to foresee and mitigate potential challenges and an inability to gauge the impact of trade-offs along the way. Organizations typically extended their ERP implementation timeline to combat a combination of the following issues (in order of reported frequency):

- **An inadequate timeline.** Respondents reported that project timelines they considered “realistic” actually allowed little margin for missteps, unforeseen issues or worst-case scenarios. Unexpected changes to the project’s scope or changes to original policy decisions/direction compounded the challenge.

- **Unprepared for change.** Respondents cited an organization’s unwillingness to change as a frequent stumbling block and attributed the cause to underestimating the real impact of the ERP on the organization and/or a failed change management strategy.

- **Straying from “off-the-shelf” functionality.** Most respondents stressed the importance of sticking to off-the-shelf, configurable ERP implementations. Products have become more configurable and can be changed to meet business requirements without significant changes to code – typically referred to as customizations. For many organizations, customizations (those that were unanticipated and/or not authorized at the start of the project) were often the culprit behind delays to the project schedule.

- **Staffing.** Sourcing and assigning the right staff is an essential component of project planning. Implementation was often delayed while organizations scrambled to identify and recruit resources with the right skill sets.

It’s important to note that delays are not necessarily bad, especially if the original timeline estimates are unrealistic. But there are significant financial downsides associated with delays, including lost productivity, employee costs and lost opportunity costs from enterprise systems disruption. Prudent delays, however, may be preferable to striving to meet unrealistic targets. But organizations must weigh decisions to delay carefully. Most ERP project budget overruns are directly linked to delays in the implementation timeline.

While 57 percent of survey respondents reported the organization stayed within the original project budget for its ERP project, few could cite the original budget amount. This paradox is likely attributable to the numerous project adjustments made over the course of the project timeline. Participants in the study also struggled to provide an accurate estimate of the ERP’s total cost of ownership. Again, the figure may be elusive because of numerous changes to the project budget over time coupled with the lack of a systematic mechanism to capture costs.

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**Deeper Dive into the Details That Make the Difference**

**Setting the stage for success – Most survey respondents (70 percent) reported their ERP project timeline was inadequate. Inexperience with large IT projects was a commonly cited root cause for problems and delays.**

Though most organizations invested a great deal of time, energy and resources in preparing for their ERP projects, they often launched them with a too-tight timeline. As a result, they had little cushion when tasks required more time than anticipated, and almost everything took more time to implement than expected. Even creating the very structures that helped keep projects moving forward – things like an effective governance structure and a dedicated change management team—required a significant investment of time and often a dedicated team of skilled resources.

Data conversion, systems integration and software customizations were frequently cited as project activities that took longer than planned. Project decision-making also emerged as a key issue. Effective governance structures enabled organizations and project teams to debate options, decide and quickly move forward. In organizations where
the governance structure lacked clear decision-making authority, project teams found themselves revisiting decisions again and again, frustrating team members and creating project delays. Failing to gain stakeholder buy-in was also a major cause of delay, and typically arose around issues of software customization. One organization described lengthy and unplanned negotiations with various stakeholders to better align business processes with the ERP’s off-the-shelf functionality in an attempt to avoid costly customizations.

Organizations often made changes to the project’s scope after launch and, in some cases, made mid-course changes in overall project direction. One organization decided to explore the possibility of combining its ERP project, already underway, with a similar project being led by a partner organization. The organizations ultimately decided to merge the two projects, cascading the challenges and complications for project managers. Another organization decided to explore the idea of moving towards a common instance of the ERP; that action required the engagement of an agency which had an operational ERP. The idea was eventually abandoned but consequently delayed implementation.

So, how does an organization set a realistic timeline and stick to it? First, look for guidance from implementation partners – software vendors and system integrators – and draw on the experience of other public sector organizations. Anyone who has been through the process is typically willing to share valuable dos and don’ts. Next, plan for the unexpected. Organizations are accustomed to contingency planning and this is just another form of it. While it’s difficult to plan for unknown issues, it is possible to establish the mechanisms and processes needed to resolve them. Investing adequate upfront time and thought into areas like governance, change management and stakeholder engagement will go a long way toward keeping a project on track. Last, consider the organizational environment holistically – including IT projects already underway or future strategic plans – when developing an ERP implementation plan. One organization decided to combine its ERP project with another IT initiative already underway. Careful consideration of planned or existing efforts may identify opportunities for synergy or escalate potential conflicts prior to launch.

Finally, don’t forget the politics of change. If organizations design timelines to accommodate unforeseen hurdles and worst-case scenarios, will ERP projects be more difficult to sell to executive leadership? This study did not address this question, but it’s worth considering. Getting an extension for a project already underway is typically easier than negotiating a longer timeline upfront. Sometimes a more flexible timeline can slow momentum and enable some activities to drag out. Effective planning involves weighing all these factors.

Preparing for change – Change management was cited as a key factor in both project delays and project success. While the majority of respondents (77 percent) reported their organization established a change management strategy at some point during the ERP effort, more than half indicated some level of failure or weakness in their approach.

When change management worked well, projects enjoyed high levels of stakeholder buy-in and support, which often eased hot-button implementation activities like business process reengineering. The success of change management efforts is typically tied to:

- Effective communications and messaging around the purpose and intended benefits of the ERP
- Integration with the overall project plan
- Timing of the communications effort (the earlier the better)
- Dedicated and skilled resources/team

Change is always hard, but stakeholders that did not understand the intent of the ERP, or its potential value, were often unwilling to embrace the project. Organizations met with resistance when important stakeholders did not fully understand the impact of the ERP on core business processes and operations or upside benefits such as improved access to information, streamlined processes and alignment with best practices. One respondent volunteered that – while his organization implemented a change management strategy that was tightly integrated with the project plan and led by a skilled team – the impact of the ERP on day-to-day users was significantly underestimated.

So what does effective change management look like? Respondents typically described comprehensive efforts integrated into the overall ERP project plan right from the start. They also stressed the importance of selecting and dedicating the right people to lead these efforts, adding that having the wrong people can do more harm than good. The team has to be able to distill and translate complex information to a variety of audiences. Developing a network of liaisons or subject matter experts within each agency or department was also a strategic change management element that enhanced information sharing. Whether established as a formal network or evolving over time, these liaisons were an important communications mechanism and were especially good at gathering valuable feedback from end users.
The right software fit – Most public sector organizations grasp the value of embracing off-the-shelf software and commit to reengineering business processes to more closely align with the software’s functionality. When asked about the general approach to implementing ERP, 79 percent of respondents reported their organization attempted to minimize customizing software.

What about the others? What’s to be learned from their experiences? Roughly 20 percent of those surveyed attempted to customize a solution to mirror their current environment. Understanding the thinking behind this decision is important. Some organizations reasoned that trying to reengineer core processes while managing a complex ERP implementation would be too much for the organization and its stakeholders to handle. The project team convinced itself that adapting business processes to better align with the software’s functionality would increase the likelihood of the project’s failure. Another respondent indicated that the top priority was simply to get the ERP implemented and operational and to worry about the business processes later, an approach that resulted in a reduction of scope to keep the project on schedule. Ideally, business process reengineering should not be done in parallel with the project, but as a prelude to the ERP implementation.

Bottom line, both organizations admitted had they fully understood the consequences of customizations, especially when upgrading the ERP system later on, they would have pushed staying closer to the off-the-shelf solution. Organizations must also remain vigilant on questions of customization during the procurement process — a challenging prospect for organizations without prior experience with such a large-scale IT project. One respondent described a situation in which the expectation set during procurement — that specific functionality would not require customization — could not be met through configuration of the off-the-shelf product. In efforts to gain insight from peer organizations and check software vendor references, organizations would be well-served to focus on those areas that ended up requiring customization and push back on the software vendor accordingly.

Even the most vigilant organizations could not preclude customization entirely. Organizations understood some degree of customization would be unavoidable to achieve desired functionality. Respondents from organizations implementing both PeopleSoft and SAP typically knew about required customizations at the project’s onset. One respondent reported learning that the customizations the organization required in PeopleSoft were consistent with the experience of peer organizations implementing the same package.

Oftentimes a public sector version of the selected ERP was not available at the time of implementation, forcing public sector organizations to adapt a commercial version. Still, as one respondent described, the project team believed the ERP would accommodate specific concerns like accounting for complex collective bargaining agreements. Even though the project teams anticipated and planned for specific customizations, unexpected customizations still occurred. While they typically impacted small user groups, they still required time to complete. Organizations that did select a more public sector-specific product (such as CGI-AMS Advantage), cited the importance of off-the-shelf functionality comprehensive and flexible enough to accommodate their most complex needs — processes they’d assumed they would likely have to customize another package to achieve.

Stakeholders’ unwillingness to align business processes with the ERP was another significant cause of undesirable customization. These situations often stemmed from failed or delayed negotiations with stakeholders. Lack of stakeholder buy-in presented the project team with a difficult choice: stop the project to adapt current business process to the ERP or agree to a customization to move the project forward. Respondents also described using customizations as a means to solidify stakeholder support.

Whether an organization succeeded in limiting customizations or purposefully pursued a highly customized implementation, most project teams did not fully understand the impact customizations would have on their operating environment going forward. One respondent reported that since his organization’s ERP had reached a steady state, his team spent 90 percent of its time supporting the customizations. In hindsight, respondents agreed that had they understood the long-term impact of customizations, they would have pushed harder to prevent them.

Organizations that were able to limit customizations attribute their success to a strong commitment shared by the project team and stakeholders. Typically, they reached this commitment through communications efforts to engage stakeholder support by explaining the long-term consequences of customization and providing ample support for the reengineering of processes. Visible and consistent executive support also aided efforts to avoid customizations and further bolstered engagement of stakeholders. One interview respondent indicated that any decision to customize required review by the project’s executive oversight committee, a process established in the project’s governance structure. Adopting this practice ensured that any stakeholder unwilling to change a business process had to justify a customization. This approach struck a balance between retaining effective and efficient business processes and minimizing customizations.

Overall, respondents reported satisfaction with the ERP solution selected. Interview feedback revealed, however, most respondents had very little basis for comparison since most had virtually no exposure to other ERP solutions. One respondent’s feedback characterized the general sentiment. Anything that delivered greater automation and integration between applications and functions would have been an improvement over the status quo. The take away: public sector buyers would
be well served to seek third-party advice about what is the best – not just a better—ERP solution.

The right people with the right skills – Roughly half (52 percent) of those surveyed acknowledged challenges identifying the skill sets needed to support implementation. A near majority of those that cited staffing challenges admitted project teams were chronically understaffed. The most commonly cited barrier to adequate project staffing was identifying, attracting and retaining individuals (either employees or contractors) with the requisite skill sets.

The challenge of finding and keeping the right people was compounded by the inability of public sector organizations to offer competitive compensation, especially for the most specialized skill sets and specific solution experience. However, interview feedback suggests that even organizations with the ability to offer project staff higher levels of compensation or related benefits struggled to identify enough qualified candidates to adequately staff the project. Respondents identified various contributing factors ranging from the location of the project (small state capitals) to lack of proximity to advanced educational institutions with a complementary focus (like technology or engineering) to competition with the private sector for talent.

If organizations managed to identify and attract qualified team members, retaining them proved an ongoing challenge. Project personnel frequently resigned shortly after training to accept more lucrative positions in the private sector. The current economic downturn has a silver lining for the public sector. With widespread private sector lay-offs, highly skilled resources have become available and are willing to accept less compensation in exchange for more job security. But as the economy improves and private sector firms increase hiring, this trend may be short lived.

Effective change management often played an important role in project staffing. Interview feedback demonstrated that projects with strong stakeholder engagement and buy-in were more likely to pull skilled resources from across the enterprise to join the team. Department and agency leaders were more apt to offer up valuable employees to support the ERP project when they understood its intended value and benefits. Spirited executive sponsorship also positively impacted both employee interest and department/agency cooperation toward fielding a successful team. One respondent stressed that qualified, skilled and experienced people should always trump availability. Too often available employees had little to offer the project team.

Interview respondents described a variety of creative strategies to prepare and train project staff and maintain a pipeline of potential team members to offset turnover. One organization embedded project team members in departments and agencies as interns to learn about important business processes first hand. Another organization strengthened its project team pipeline through ongoing campus recruiting. Another attempted to formalize knowledge transfer opportunities and integrate them into the project plan in an attempt to minimize the impact of turnover on both the organization and system integrator teams. More than one organization used incentives to attract the best people to the project team.

Organizations should be realistic in their approach to project staffing in both thinking through the time and resources required to build the team and prioritizing those skill sets the team can’t live without. Identify the critical skill sets and engage stakeholders (such as department directors and other leadership) to recommend talent. Be prepared for project team turnover. Not everyone works well within a project team environment – even highly skilled and experienced resources. Consider project staffing over the entire project’s life cycle. Who will stay behind to ensure phase one is operational and who will move forward to help implement stage two? Finally, about a quarter of responding organizations described using some type of incentive to make the project team more attractive to existing employees.

Respondents also discussed valuable structures for an effective project team. One organization reported a project team structure mirrored by vendor staff. An organization and vendor lead was assigned for each area of the project. Both leads were accountable for the work of the smaller team and progress on the specific work stream. Both leads were also held accountable when it came to project decisions. The respondent described an environment in which any information or status report presented to the project steering committee assumed the co-leads were in agreement. This approach ensured the project leads worked together and dealt with issues or concerns within the smaller team while fostering joint accountability – in other words, the organization lead simply couldn’t blame the vendor if things weren’t on track.
Pain is Worth the Gain

Despite the challenges posed by ERP projects, the efficiency gains and ensuing cost savings are well worth the effort. Implementing an ERP system is a unique opportunity to rethink and redesign work processes to develop an e-government strategy that takes full advantage of rapidly evolving IT innovation and aligns with best practices. Those public sector organizations that use the ERP planning process for strategic modernization rather than simple tactical automation will be the real winners.

Unfortunately, for most public sector managers implementing a complex ERP system is a once-in-a-career effort. Since the ramifications of planning and decision-making will affect the organization's core business processes far into the future, the process should not be left to technologists. It’s imperative to draw on the vision and skills of top executives and the most able managers. Finally, weigh the advantages of augmenting the in-house team with an outside expert, a vendor-neutral advisor with the breadth of experience and industry knowledge to help select the right option, negotiate the right contract and ensure the project comes in on time and on budget.

Public sector organizations that have already implemented ERP solutions tout benefits ranging from operation improvements and cost savings to increased productivity to near instant access to data needed for planning and forecasting. No one says it was easy but everyone reports the gains are worth the pain.

Learn More

For more information about this research project, contact Elizabeth Newman, senior manager, at enewman@kpmg.com. For more information about related KPMG Public Sector service offerings, contact Glenn Davidson, managing director, at gdavidson@kpmg.com.

Visit www.equaterra.com/publicsector for the latest sourcing and ERP research and news.

About the Author

Elizabeth Newman, KPMG senior manager - Advisory, has more than ten years of experience in leading and supporting strategic initiatives in complex environments to achieve lasting change, increased efficiency, streamlined operations and cost reductions. Elizabeth provides strategic consulting around organizational transformation, business process improvement, shared services, outsourcing and performance measurement. Elizabeth’s work often includes advanced financial analysis to capture current costs, evaluate transformation options, and identify potential and real savings. She is a frequent research contributor and often presents at conferences across the country. ERP implementation within the public sector is an area of keen interest given Elizabeth's extensive experience working with public sector clients.
Appendix

Research Respondent Demographic Information
The majority of survey respondents (71 percent) held executive positions within their organizations, including chief information officer, ERP director and related titles. More than half of survey respondents (62 percent) represent state government. Most of the organizations they represent have completed their ERP implementations and the ERP is currently operational.

The following figure provides a detailed breakdown of where each organization is in its overall ERP process, according to survey respondents. Roughly 21 percent of survey respondents report their organizations are currently exploring ERP as a transformation option, a reflection of growing interest by the public section.

Organization’s Current Status in Regards to ERP (Survey Respondents)

- 72% ERP solution is in place and operational
- 21% Exploring transformation options including ERP
- 3% Exploring transformation options excluding ERP
- 3% In process of implementing ERP but stalled
- 3% Attempted ERP implementation but failed
- 3% No plans for investment or improvement in ERP at this time

Figure 1

Of the organizations that participated in interviews, seven had implemented or attempted to implement an ERP solution, including functionality in support of human resources or personnel, payroll, finance and accounting and budget. Three organizations had implemented only finance and accounting/finance management functionality, and another two organizations had implemented only human resources/personnel functionality. Numerous interview participants described additional ERP functionality such as asset management, facilities management, procurement and travel.

Respondents to the online survey were asked to identify what their organization’s ERP solution is used for currently. Most respondents reported the ERP is used for both finance and accounting and human resources/personnel functionality.

Current state ERP functionality according to respondents to the online survey:

- 95% for Finance & Accounting
- 91% for Human Resources
- 55% for Sourcing, Procurement and Supply Chain
- 32% for Business Intelligence
- 27% for Customer Relationship Management (CRM)
- 23% for Logistics and Transportation
- 23% for Facilities Management
- Other: Grant Management and Pension

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<th>Drivers of Extended ERP Timelines</th>
<th>Recommended Actions for Greatest Likelihood of Success</th>
<th>Lessons Learned from Public Sector Organizations</th>
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| Inadequate Timeline              | • Build a timeline that allows some margin for the unexpected.  
• Look to project partners – software vendors and system integrators – for guidance on timelines.  
• Learn from peer organizations – especially those implementing the same solution.  
• Allocate ample time for detailed requirements validation and understanding the needs of all your stakeholders.  
• Integrate change management and a clear governance structure into the project plan. | • Consider the entire IT landscape – including current and planned projects – during planning.  
• Establish a contingency fund.  
• Develop a structured and manageable implementation approach endorsed by vendor partners.  
• Governance structure should outline decision authority.  
• Build in ongoing assessment to enable constant refinement of project plan moving forward. |
| Unprepared for Change            | • Change management should span the entire project.  
• Articulate the intent of the ERP and potential value in engaging stakeholders.  
• Dedicate a skilled team to lead change management efforts.  
• Develop a network of liaisons to ensure effective communication across the enterprise. | • Visible executive sponsor played a key role in building project momentum and engaging stakeholders.  
• Effective communications were comprehensive, consistent and tailored to numerous specific audiences.  
• Don’t underestimate the size of the change and impact on end users. Evaluate if a “big bang” approach is realistic for your organization.  
• Mitigate resistance by prioritizing and meeting project deadlines. |
| Straying from off-the-shelf functionality | • Business process re-engineering should be a key component of preparation for ERP implementation.  
• Commit to minimizing customizations and engage stakeholders accordingly.  
• Perform careful due diligence to select a solution with necessary off-the-shelf and configurable functionality.  
• Strike the right balance - customize where it makes good business sense.  
• Work with your vendor to optimize and baseline customizations into the most current product version. | • Identify upfront during procurement process necessary customizations where software cannot be configured.  
• Consider the long-term consequences of customizations, especially in terms of the impact of future upgrades.  
• The executive sponsor can play a key role in minimizing customization.  
• Don’t assume the software can deal with your complexities. Ask the tough questions upfront. |
| Staffing the Team                | • Be prepared for project team turnover. Overstaff early and building a strong candidate pipeline.  
• Prioritize needed skill sets and experience.  
• Seek talent from across the organization by engaging leaders and stakeholders.  
• Utilize incentives to attract and retain talent. | • Leaders are most likely to volunteer valuable talent if they understand the value of ERP.  
• Foster project staff continuity on both the organization and vendor or system integrator side.  
• Availability of resources is not as important as their skills and experiences.  
• Structure the project team for dual accountability – both the organization and the vendor partner own the outcome. |
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