IMPLEMENTING ENTERPRISE RESOURCE PLANNING:
LESSONS LEARNED FROM THE FRONT

SAP

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LESSONS LEARNED FROM THE FRONT

by Greg Tomb

EXECUTIVE SUMMARY

SAP has implemented enterprise resource planning (ERP) systems in both the commercial and public sector for more than 30 years. From these experiences, four important principles stand out, as follows:

- Successful implementations start and end with the involvement and contribution of senior executive leadership, providing the governance and management necessary to achieve organizational buy-in throughout the process and ensure that goals are achieved.
- Success also requires confidence that implementing ERP software achieves true value for the organization - value measured in substantial process improvement.
- Implementation has a life cycle, with some of the most important phases at the start - requirements gathering, business case development, and solution design. The business case quantifies the desired process improvements and provides the organization with the goals necessary to carry it through the rough times.
- Implementation programs with the set goal of "replacing systems" - without mentioning process improvement - are doomed to failure.

Best practice indicates that a successful implementation can, in fact, force an organization to reevaluate its business practices and processes, focus on clearly defined goals and objectives, create a higher understanding of the need for data accuracy, emphasize time-phased material planning, and enable a more effective data-sharing environment. However, such high-level benefits require a new approach to project implementation, one that applies the lessons of the past to reinvent the systems of the future.

The following point of view draws lessons about what has been done well, what has yet to be done well, best practices from large commercial company implementations, and best practices for the governance of implementations that achieve the results and benefits foreseen.

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WHAT ARE THE KEY BEST PRACTICES IN ERP IMPLEMENTATIONS?

- Senior executives who develop a vision for the ERP implementation with supporting goals and objectives based on improving specific capabilities will achieve success in implementation.

- **In each specific IT implementation, leadership must provide the necessary high-level support and back-up, which protects funding and removes organizational roadblocks.** In one example, a public sector project, the project teams received support from senior leadership as project managers worked to resolve the many difficult and complex issues. Senior managers in this organization insulated the implementation teams from distractions to allow them to focus on the tasks at hand.

- **In some IT implementations, the use of SAP experts to advise and assist has been encouraged and allowed, and their involvement helped avoid many typical implementation pitfalls in key areas.** In another large ERP implementation, SAP experts helped validate key concepts, but more important, educated the corporate program office members about the new software - enabling them to better work with the commercial systems integrators. The combination of product design, thought leadership, and practical experience has demonstrated the right partnership model for all of the organization's programs.

- As projects unfold, implementation partners have the necessary authority to elevate and resolve immediate issues have been elevated and resolved in real time, without delays. Functional experts, in turn, are available to handle project manager requests in real time, again.

- **At each level of the IT implementation, the implementation team takes the seriousness of the project to heart, showing real dedication to duty and demonstrating exemplary productivity.** The implementation groups are motivated, and resourceful, and do what ever it takes to get the job done. Finally, senior management provides the right incentives so that the implementation team can maintain its momentum over the sometimes very long implementation cycle

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WHAT PRACTICES ARE FOUND TO ADVERSELY AFFECT AN IMPLEMENTATION?

- **Bureaucratic processes and organizational structures can slow and complicate the successful completion of IT implementations, and dampen the natural enthusiasm of the users for new technology, despite overarching leadership support.** In the case of one large organization, the system of architecture compliance and certification is too complex -- and encourages users to find ways around the system. This same "IT creativity" can work against a large systems implementation.

- **Companies embark on too many individual IT and transformation projects without considering how they overlap, or whether they are all strategically necessary, and, as a result, use up too many resources.** Functional organizations tend to retain their older processes, thereby maintaining workload for themselves, while they develop systems requirements based on current processes. With limited senior governance and no overarching authority, some implementations might be left to be managed as individual projects, with no attempt to connect them, learn from them, or in any way treat them as the fundamental machinery of change that they actually were.

- **Inaccurate estimates for project scope can hold back progress and cause delays at crucial points along the cycle of implementation when the scope expands.** In one project, for example, the original scope planned for 11 systems/interfaces, 9 conversions, and no enhancements or custom reports. When reality hit, the team found the project required more than 40 systems/interfaces, 9 conversion, 6 enhancements, and 5 custom reports. This change in scope added more than 12 months to the implementation cycle.

- **The organizational culture can affect the duration of an implementation.** For example, if the organizational culture takes pride in individual competence and capability, problem solving in the field, and creativity in getting a job done - then implementations can take longer. The reason: such an emphasis on individual competence - and in some cases, individual team competence - impedes progress. As a team or an individual tries to solve a problem independently, time is wasted, and when the call for help finally goes out, the problem is often greater than it first appeared.

- **Many large corporations and organizations treat IT implementations as technical projects, requiring technical skills to implement - and forget the need to establish business goals.** In one recent implementation, for example, emphasizing the technical aspects of the system blinded the teams to the need for cross-team collaboration. More important, because management did not completely articulate the power of the new, integrated information, team members became distracted putting out other "fires" and

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management missed the opportunity to use the advent of enhanced functionality as a motivator to push the teams into greater levels of productivity in implementing the system. The implementation dragged on for more than two years.

- **Organizational leaders, untrained in the specific capabilities or challenges of an ERP environment, often find it difficult to make critical operational and functional decisions, even when committed to the larger goals.** Decisions are eventually made, but too slowly, often bringing progress to a standstill.

- **Implementation consultants who do not adequately attempt to understand or work within the organization's culture can actually hinder progress.** Some consultants seem ready to lengthen the process of implementation, instead of creating the climate for change necessary to accelerate the process of implementation and increase productivity.

- **When the project managers in charge of IT projects are technical managers whose capabilities focus on the workings of IT systems, the needs of the end user can be neglected.** Without a team that combines both points of view (the user and the technician), large implementations often fail to achieve the functional and technical goals set for them.

- **Many organizations do not see the point or necessity of achieving - and communicating - quick wins that showcase the benefits that the system would bring, even though doing this has long been considered a best practice.** Again, the organization's "can do" culture works against the need to "sell" the system; teams are expected to appreciate the system's potential innately, simply because that is their job.

- **Especially when a company's new projects number in the thousands, the executive leadership becomes concerned that key issues and capabilities are being forgotten - resulting in micromanaging.** Consequently, the implementations suffer from second-guessing and rework.

- **Despite encouraging collaboration among IT projects, sometimes program offices neither fund nor implement configurations already completed by another program office.** Instead, organizational project management often tries to control integration among its divisions or to adopt standards, which is done without seeking collaboration from other project managers. This can result in an IT project jam, especially if no thought is given to creating an "extended organizational team" to help solve specific problems is or including anyone else in the process of implementing changes.
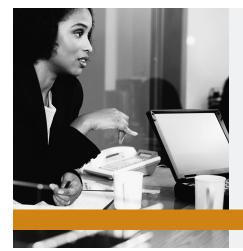
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- **The organization develops a structured program to leverage vendor expertise or capabilities, but the emphasis is off-base.** The organization spends most of its efforts driving custom vendor modifications, not leveraging the vendor's expertise to increase the productivity of implementation efforts.

- **Executives underestimate the difficulty and complexity of the data migration and conversion necessary to implement an SAP system.** Organizations often do not establish interim project managers to oversee the data conversion process, or recognize the difficulty of migrating data into the new systems, resulting in missed deadlines and cost overruns.

- **The development of interfaces takes too much time and effort, and create productivity problems in reaching the milestones envisioned for the projects.** Too often, planners only evaluate the potential for interfaces at the highest system level.If developers do not also consider each of the transactional levels, they may well add weeks of delay when the need for transactional interfaces comes as a surprise.

- **The importance of end-user training is underestimated.** Organizations most often do not train core teams of end users in the intricacies of the new solution before the start of the project, and almost never involve these end users throughout the implementation.

- **Systems are implemented without first instituting process redesign.** When the product team attempts to rework the system to accommodate existing processes, rather than first redesigning those processes, little is accomplished in terms of real organizational change. This practice takes up too much time with unproductive activity and cuts down on accomplishing productivity goals.

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WHAT SPECIFIC BEST-PRACTICE TACTICS CAN COMPANIES USE TO MAKE CURRENT AND FUTURE IMPLEMENTATIONS MORE EFFECTIVE?

- **Overwhelming evidence from implementations within large global enterprises proves that success starts with senior executive sponsorship and buy-in, followed by active participation in creating the vision and in overseeing a flawless execution.** Experience has shown that ensuring organizational acceptance of the ERP implementation is paramount for achieving the business goals set for it. As a result, senior executives must participate from the beginning in setting the goals and communicating the importance of the implementation from executive suite to shop floor. Throughout the process, there are too many decisions to be made, too many challenges to be met, for senior executives to opt out of the process.

- **In the same way, the decision-making/governance process must be clearly defined and include all key stakeholders.** Again, the key objective is organizational acceptance. If the process owners are involved in decision making and help design the goals for their own process, for example, they'll have a much stronger stake in the project's success.

- **A well-constructed business case quantifying the specific process improvements necessary to achieve long-term goals is an important ingredient.** When an organization starts with a specific goal, the program is far more likely to succeed. And when a large corporate transformation is the ultimate goal, specific business-based objectives need to be cascaded to each of the ongoing implementations. In that way, the connection between these objectives and the broader goals supporting the overall transformation are most clearly articulated. All actions and decisions around organizational implementations should be measured by how they will help the company achieve its vision.

- **Best practice indicates that implementations should be pursued according to an extremely aggressive implementation schedule that is accelerated at every opportunity.** Such aggressive scheduling is important for two reasons. First, it helps assure organizational buy-in and acceptance. Second, problems that crop up are more likely to be solved in real time instead of going undetected as attention turns elsewhere.

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- **For implementations to work, the end user must know he will benefit from the specific capabilities of the solution from day one - through training, for example, or a familiar user interface.** Research has shown that implementations are far more likely to achieve their goals when end users are given the proper training to master the new solution at the start of the implementation. Those that involve the end user, even to the point of helping to design the goals for process improvement, have a greater chance of succeeding.

- **Including end users from the beginning of the project provides the best approach to achieving their buy-in and cooperation.** This can be achieved in many ways. One very effective tactic is for senior management to designate end-user champions or "super-users" who can clearly articulate user needs, assist in blueprinting, and explain the benefits of the new system to peers.

- **An Enterprise-wide program management office (PMO) can coordinate across divisions and implementations.** The PMO must support and manage the implementation of configurations already accomplished as well as those to come, providing the leadership and direction necessary to develop the business case and quantifying the specific process improvements that must be made. An Enterprise-wide PMO will help make the myriad of decisions necessary along the way and help organizations avoid past mistakes.

- **The Enterprise-wide PMO will provide the streamlined governance necessary to rapidly respond to issues, document the response, and make certain that issues do not escalate beyond the boundaries of the area in which they are first observed. The PMO must have the responsibility and authority to make decisions that will be supported by the rest of the organization.** The Enterprise-wide PMO can develop a single integrated work plan, critical-path focus, and better scope management. It can wield the decision-making power necessary to eliminate inefficient practices, and provide the impetus to rapidly respond to problems, document issues and their resolution, and monitor implementation progress.

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- **Before the implementation begins, it is important to remove organizational roadblocks such as a culture that is more adept at "flying under the radar" or an IT community content with the status quo.** Once again, the Enterprise-wide PMO can help change culture by communicating the need for change from the start - and continuing to update the organization on the types of change that are needed. In the case of one global organization, for example, the SAP implementation was not going well; once the company set up a centralized office in charge of making decisions and determining the right procedures for the implementation, the implementation went smoothly, and the project was able to achieve the business goals set for it.

- **A life-cycle approach to the solution will help remove organizational impediments, as the solution is allowed to evolve naturally.** Implementation of SAP with a life-cycle approach (from inception through support) helps guarantee success. The most important phases with a life-cycle approach from inception of the life cycle from a value realization perspective are the initial phases - requirements gathering/business case development and solution design.

- **Solution vendors must be part of the process from the beginning and their capabilities leveraged to meet productive needs.** While independent systems integrators are absolutely necessary, they are sometimes motivated by maximizing time and materials, which is not necessarily conducive to a quick and effective implementation. With SAP Consulting on board, specialists in SAP software provide thought leadership on product design and in developing an implementation plan that provides a precise road map for success, including the creation of interim milestones, and the potential for interim victories, which helps create virtuous process.

- **Process change must begin before the ERP implementation and continue throughout implementation as an integral part of configuration.** All successful implementations begin with a business case that quantifies the precise areas for process improvement - and then sets up a tracking mechanism to make certain quick wins are identified. In successful implementation, for example, the company standardized business processes, applications, and the data center before proceeding with the implementation.

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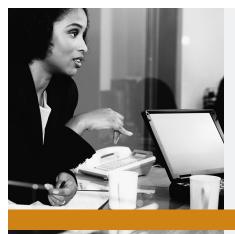
- **Regular strategic meetings should be held to review the achievement of benefits and other goals and ensure alignment between the end user and the implementation. All involved parties must be represented to understand what is required (end users, implementers, and software vendor).** Once the goals for process improvement are articulated, they must be monitored and refined throughout the implementation.

- **If one of the goals for the implementation is the elimination of legacy systems, it is imperative to plan for it via a systems realignment and closure process.** Such a plan will help determine the most appropriate way to integrate the new system with the old, enhancing the capabilities of the legacy systems without ripping them out.

- **It is important to get the right people involved in design and test and to make certain that key process owners "own" the solution.** In the process of developing the business case, the process owners must identify the key areas where improvement is necessary. In that way, the organization guarantees that the users who will benefit from the solution actually help design the system implementation and "own" the results from the start of the project.

- **Organizational alignment and stability create smooth implementation.** When the business case articulates key areas of process improvement, it goes a long way toward creating the organizational buy-in necessary for the changes that must occur. In that way, the organization anticipates and prepares for change, and is not disrupted by it. Organizational disruption creates difficulties for the team implementing the system.

- **Successful implementations always include direct access to senior decision makers by IT project managers.** Senior management commitment is the only thing that is universally understood and accepted as an imperative for successful IT implementations.

- **Senior level management must have a clear understanding of the discipline required for an integrated system.** Too often, senior executive leadership participates in the strategic discussions leading up to an implementation but do not keep the implementation of the new IT system on their radar screen throughout the project. Certainly, they know and care about the strategic goals for such systems. But once the decision to invest is made, too often they move on to other important problem, and hand over complete responsibility to the CIO or IT project manager. Senior executives must realize

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that a large ERP implementation is a major transformation project, which will change the way an organization thinks and acts about a certain process. As a result, they must involve a team of senior management, functional and technological experts to resolve issues in real time and make the right decisions along the way, always considering the long-term strategic impact. When senior executives recognize the difficulty of implementations, they provide the leadership and resources necessary to make them work.

- **The learning curve is the life of the system; overtraining is impossible.** Research and experience proves that training the users of the system - before they must use it - is essential. Each ERP implementation establishes a foundation for the future - and as such, changes and evolution are a natural offshoot. To be prepared for change, users must start with a solid understanding of how to use the new technology, and the organization must expect to provide top-notch training before, during, and after every implementation or upgrade.

- **Using a proven implementation methodology is the best way to keep the project on track.** A proven methodology is the wisest course of action, using tools and techniques that have demonstrated their effectiveness over countless other profitable implementations. The SAP methodology begins with a business case development and transitions into system design, and is carried out by experts with solid experience in large, complex projects.

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CONCLUSION

"Participation" is probably the best way to summarize the prescription for a successful ERP implementation. In short, everyone must play a role. Lessons learned after countless implementations point to the crucial part that executive leaders must play in setting goals and properly funding the project, the importance of stakeholder involvement, the necessity of end-user buy-in, and the key contributions to be gained through the expertise of the solution vendor. While the far-reaching impact and long-term value of this type of organizational transformation is undisputed, the journey is not to be embarked upon lightly. Making sure that everyone is on the same path - and understands the rewards of reaching the destination - is the best way to get there.

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