DESIGNED TO FAIL:
WHY IT PROJECTS UNDERACHIEVE
AND WHAT TO DO ABOUT IT

Donald A. Marchand and Joe Peppard

IMD 2008-11

Donald A. Marchand
Professor of Strategy Execution & Information Management
IMD International
Chemin de Bellerive 23
CH-1001 Lausanne
Switzerland
Email: marchand@imd.ch
Tel.: +41 21 618 0259
Fax: +41 21 618 0707

and

Joe Peppard
Professor of Information Systems
Cranfield School of Management
Cranfield University
UK-Cranfield, Bedford MK43 0AL
United Kingdom
Email: j.peppard@cranfield.ac.uk
Tel.: +44 1234 754 421
Fax: +44 1234 751 806

Acknowledgment
The authors would like to thank Amy Hykes, IMD Research Associate,
for her research in preparing an earlier version of this paper.
Two similarly sized banks operating in the same geographical market deployed the same customer relationship management (CRM) package using the same team of implementation consultants from the same vendor. One bank blames the resultant system for a decline in competitiveness; the other regards it as the basis for their strongest and most consistent period of profitable growth.

A global manufacturer invests over $100 million in company-wide business intelligence (BI) system that is hardly used, while at the same time, dozens of local BI initiatives costing from $5,000 to $100,000 deliver highly positive returns.

Such contrasting outcomes from IT investments are common. Most of the organizations we have studied and most of those reported in the academic literature and trade press have had mixed success at realizing business benefits from their investments in information systems. What is clear from the evidence is that the increasing power and sophistication of information technologies has not had the positive impact on the bottom line that many had expected. The irony is that while an increasing number of organizations now report fairly high rates of technical success in implementing CRM and BI systems, a large percentage struggle to generate business benefits from these investments.

With these statistics, why then do companies consistently spend from 2% to 10% of annual revenues and up to 50% of capital investment on IT projects that ultimately do not deliver any business value? Many reasons can be offered. First, very few companies actually track the benefits from IT investments and have no way of knowing what, if any, business benefits were realized. Second, many companies believe IT projects are successful based primarily on criteria such as implementation deadlines, proposed budgets and predetermined technical specifications. Yet, projects can be on-time and within budget and deliver no actual business value. Third, most companies that are aware that their IT investments have produced minimal business value do not even try to understand why their IT projects are systematically underachieving. Instead, these companies simply lower expectations and look at IT as an expense to be minimized and not as an investment to be optimized.

Over the last decade, we have studied hundreds of successful and unsuccessful large-scale, enterprise-wide IT projects in areas such as data-warehousing, analytics, BI, enterprise resource planning (ERP), patient administration systems, supply chain management and CRM. Our research has led us to one simple conclusion: Most IT projects are “designed to fail!” From the outset, despite the investment of money and effort, these projects were never going to deliver the successful outcomes that were promised in the business cases. And in an effort to achieve this elusive success, many organizations often continue to pour additional money into a project long after it should have been abandoned, in the hope that somehow they will get it right.

By comparing successful and less successful projects, we have found profound differences in how IT projects are set up and implemented. From our data, we have discerned two contrasting paradigms that guide the execution of IT projects. The first, which dominates practice and underpins contemporary implementation methodologies, is the design-to-build (D2B) paradigm. The emphasis of IT projects run under this paradigm is on building and deploying the proposed technology. The alternative is the design-for-use (D4U) paradigm, which focuses on information and
its use by managers and people in the organization and in decision-making processes. This latter paradigm has some profound implications for how we run IT projects and ensures that they are “designed to succeed.”

The “Design-to-build” Paradigm

A major flaw with the dominant design-to-build approach underpinning IT projects is that it parallels project delivery in the construction industry. With its focus on managing the building process, the IT organization plays the role of a general contractor hired to deliver a product (the technical system) on schedule and within budget. The IT organization and business unit (client) create a list of specifications that both parties sign off on and the IT organization deploys internal resources or hires staff or sub-contractors (vendors and systems integrators) to create a product (i.e. hardware, software and telecommunications) based on these specifications. Within the D2B paradigm, the criteria for project success are defined as the delivery of a product on time, within budget and to spec, just like for a building contractor.

This approach works well in the construction industry, as client needs are relatively static and a construction project and the resulting building are easily visualized. Furthermore, the value of the delivered product is in its possession and in what economists refer to as an “exchange” value. However, when dealing with information technology in organizations, requirements are dynamic and often preliminary, frequently shifting over the course of a project. It is much more difficult to imagine the users’ needs and the eventual value of the pre-determined specifications for IT projects. Perhaps more fundamentally, benefits don’t come directly from the technology itself, but rather from the changes within the organization that it supports and enables. Key changes will result in information usage, both at an organizational and individual level, and in developing the capability to work with information. If these changes don’t happen, benefits will be elusive.

Thus, by replicating the construction industry approach, IT has become far too focused on building the system right. What has been a suitable model for success in construction has not produced positive results for the IT industry. Figure 1 illustrates the typical phases of an IT-enabled business project following the D2B paradigm.

**The Launching Phase**

The typical IT-enabled business project is generally launched with a laudable objective: To solve a business problem or to help in achieving strategic goals. Often, functional areas such as sales, marketing, customer service, or finance initiate an IT project in order to improve customer relationships, increase revenue, improve communications, consolidate information sources, and/or increase efficiency of business processes. A project proposal or plan is then developed based on these business needs. The proposal might address investment objectives, required budgets, IT tools/software, and a return on investment (ROI) calculation. Many times information in the project proposal is overstated, understated and even overlooked and is created simply to justify the project budget, not necessarily to accurately identify
and quantify potential business benefits. For example, ROI projections are frequently heavily focused on cost savings instead of the concrete business value resulting from increased sales, improved service and faster order cycles. Without clear expectations about the desired results of an IT implementation, managers cannot accurately assess the success of an IT project. Nor is there a clear understanding as to how business benefits will be generated.

**The Planning Phase**

Once senior managers approve the investment proposal and a budget, a project team is assembled to define detailed requirements and to select a technology solution. During this phase, the project team starts examining existing operations and processes and gathering the “user requirements” for the new system. Little to no time is spent assessing user readiness for the proposed IT system or for the adaptation of users to changes in the workplace arising from the deployment of the new system.

The weakest step in this phase is typically the gathering of user requirements. Project teams tend to hastily gather user requirements in order to start focusing on technical deployment. The system is developed according to the users’ current needs or based on assumptions about future needs. Users may be involved in the process, but requirements are often described in technical language that is difficult to understand. Most users also have difficulty articulating what their dynamic information and IT needs are. Project teams also fail to account for the fluidity of specifications required by IT projects in a business setting and create an inflexible set of requirement documents that do not address the actual needs of the users at the projected time of implementation. Senior executives are then asked to sign off on these lengthy and technical project documents. Most executives lack the technical knowledge required to properly critique IT project documents and assume the assessed requirements are accurate. Once the project plan is approved, the deployment phase begins, and the project quickly focuses on building a technology system.

**The Deployment and “Go-live” Phase**

During the deployment phase, the project team feels pressured to deliver a built, integrated and tested system on time, so they diligently focus on getting the new technology up and running by the go-live date. As go-live nears, the team initiates a “change management” effort. Often this effort is insufficiently planned from the outset and is limited to some initial user training and help desk support. Even when a change management stage is sufficiently planned, generally towards the end of deployment, the budget and time allocated to such an effort have often been eroded or consumed all together by unanticipated technical overrun expenses. Since change management efforts are often short lived, they are not able to adequately address the real people and behavioral issues that a new system inevitably raises. Since IT organizations are not typically held accountable for and have no control over business users, it is not surprising that they choose not to spend a lot of time or effort addressing the use of new IT systems by people.

At the end of this phase, the project team disbands, believing they have successfully completed their task by implementing the new IT system on-time and within budget.
Even executive management views the project as complete since the system is in the hands of the users, and they expect to start realizing the proposed business benefits.

**The “Post-go-live” Phase**

The technology is now up and running and staff are expected to use the new system. The limited change management effort that started towards the end of the deployment phase continues into this phase, usually lasting no more than a few weeks or months. Again, due to budget and resource constraints, it continues to focus mostly on training initial users, help desk support and self-directed, on-line user training.

At first, users are open to or at least supportive of the new system. However, this initial interest quickly fades as users determine the new system is more difficult and/or time consuming than previous systems. Users begin to point out problems with the new system and its inability to meet business’s needs – deficiencies arising from the inflexible specifications set in the project plan months ago. Usage of the system begins to wane yet managers hope the usage issue will somehow improve on its own. When usage doesn’t improve and business value is not realized, IT gets blamed for over-promising and under-delivering.

This phase has also been referred to as the “shakedown” phase\(^\text{11}\) and may also involve resolving serious problems if business performance has been adversely affected or merely tuning the system and business processes to achieve expected performance levels. Any implementation should anticipate and plan for this phase, ensuring resources and procedures are in place to deal with the consequences of implementation. Research indicates that performance usually dips immediately after implementation.\(^\text{12}\)

This shakedown phase is a pivotal time during the life of any large-scale IT project. It is during this phase that there is a significant risk of the project spiraling out of control – either resulting in it being abandoned altogether or taking on a life of its own, soaking up cash but failing to deliver any significant benefits to the organization. Our evidence\(^\text{13}\) indicates that some performance improvement during the shakedown phase can occur due to:

- Internal rationalization of current operational information improving its quality; and/or
- Integration of internal operational processes and changes with external processes, whether through the creation of new processes or the redesign of current processes.

The crux of the matter is that an IT-enabled business project is NOT about IT deployment alone, but about how people use information and IT in the work place to carry out business tasks, execute processes and achieve goals.\(^\text{14}\) A project is not complete at go-live, but is at best the beginning of an ongoing value-realization process. In order to capture value from the system, managers must ensure the new IT system is used effectively and addresses current business needs.
Global or Multi-site Implementation

The flaws in the current IT project paradigm are only magnified during a global, multi-site IT deployment. With such deployments, a focus on simultaneous technical implementations and aggressive deadlines results in an even more rigid set of user requirements and specifications. In addition, there is often little time and no people available to evaluate the successes and failures in each deployment, thus few lessons learned are ever incorporated into follow-on projects. Mistakes are often then replicated with each roll out, sometimes as many 30 to 60 more times on a worldwide basis.

Figure 2 depicts the deployment timeline for one organization’s global implementation of its ERP system. In common with most organizations, Implementation typically starts with a small pilot deployment that is immediately followed by an aggressive timeline for global implementation. The IT deployment team usually composed of company IT staff and external consultants, moves rapidly from one deployment to the next, using a cookie-cutter approach. Once go-live is achieved in one department or geographic location, the IT project team members are usually quickly reassigned to complete the same tasks at another location.

Examples of IT-enabled Business Project Failures

Large enterprise systems are typically the most complex and risky type of IT projects. They generally require large dollar investments with no guarantee of any returns. These types of projects impact business processes by mandating how key tasks and processes are performed. In this section, we look at three real-life examples of failed IT enterprise implementations from our research although there are many others that are well documented in the press such as FoxMeyer, Avis Europe and Select Comfort.15

A Global Pharmaceutical Company (Enterprise Resource Planning (ERP))

This global pharmaceutical company had numerous, disparate IT systems in place as a result of major growth and several acquisitions during the last decade. The executive leadership team decided it was time to standardize the company’s business processes and software systems. Their first step was to fund an ERP project aimed at making transactional processes uniform throughout the organization.

Unfortunately, the project team was so focused on standardization that they severely impacted the organization’s flexibility. Their preliminary decision to freeze all of the business processes and system designs for the entire project over four years virtually ensured their failure. How could a system based on requirements that existed four to five years prior to implementation deliver any business value?

The intense focus on building a standardized system to desired specifications also meant that no time or effort was spent on developing plans to help people effectively use the proposed system and make the necessary process changes brought about by the new technology. Even though it is clear to an outsider that this project was set up
to underachieve, the company believed they took the necessary steps to successfully standardize their business across all global operating units.

While it is critical for companies to conduct a very thorough planning process, especially for complex global IT rollouts, it is even more important that a company remain flexible throughout the planning and implementation stages. No one can predict what challenges the business will face four years in the future and what their users will need to successfully navigate those challenges.

ERP systems impact all the operational processes required to run an organization from financials and manufacturing to materials management. These systems contain structured operations and transactional information that permit practices to be measured and tracked. Enterprise software implementations generally have a higher level of user compliance because they are critical to operations and the links between processes in the systems are highly interdependent. Errors, mistakes or missing data in the new systems can have grave consequences on daily business operations.\(^{16}\) However, if as in the example of this global pharmaceutical company, the project team does not effectively address the dynamic business needs of the organization and the changes required in business processes and employee work methods, users are bound to become frustrated with the ERP systems. Many times, user frustration is reflected in the poor and/or low quality of information derived from the systems and this further undermines any business value a new ERP project could bring.

**A European Industrial Products Company**

This quoted company piloted its global CRM initiative, with a worldwide budget of €200 million, in a European country. The implementation was judged a success as it was delivered on time, within budget, and met the project scope! Any initial exuberance was however tempered by a management audit three months after the go-live showed that the CRM system was not being used by the marketing and salespeople in the pilot country unit.

Since the global initiative was being sponsored publicly by the CEO and a key Board member, no one was willing to confront them with the fact that little value would be realized from the CRM deployment unless responsible managers actively addressed the people, information and IT usage issues in the sales and marketing functions of the countries where the new system was to be implemented.

Since the sponsors considered the CRM pilot a “deployment success,” they decided to continue rolling out the global CRM initiative worldwide in a similar fashion. Unfortunately, the company remained so focused on successfully deploying technology that they failed to recognize that they needed to change salespeople’s behaviors and values to ensure effective use of the system. The company was not able to realize the expected value from their €200 million IT investment.

In CRM implementations, value realization can be difficult since it is hard to force users to adopt a new CRM system. The sales force can usually continue to operate using homemade or old solutions once the new system is up and running, which is exactly what happened at this European industrial company. Since the information managed in a CRM system is semi-structured, it is difficult for managers to determine
the optimal quality or quantity of information and what the usage level should be. For instance, it is impossible for a manager to know if a salesperson entered specific information received during a conversation with a customer. As a result, in CRM implementations, it is crucial for management to address behavioral issues and to align an incentive structure with new business processes before the go-live of a new CRM system. Otherwise, as in the example above, the CRM system will be underused. 

CRM is not a product that can be purchased. It is a disciplined, integrated approach to managing relationships with customers that requires continuous improvement. It is a strategy to improve customer orientation, not a tactic, and although supported by IT, it involves considerable organizational re-design, including changing the mindsets and behaviors of managers and employees of the organization. This European industrial product company was so focused on deploying the IT system that they never recognized the need to change salespeople’s behaviors and values in order to capitalize fully on the new sales and marketing information that the CRM system would have made available for better decision making.

Global Materials Management Company (Business Intelligence (BI))

This company had spent $44 million over the last nine years on various business intelligence (BI) initiatives. Since these investments had never been reviewed, no one knew what, if any, value these projects had delivered. Only when management decided to budget another $30 million to extend their latest BI solution did someone finally decide to review the ROI on their past BI investments. Management was shocked to hear that no value had been delivered, largely due to the fact that the BI systems were underutilized. How could it take nine years and $44 million until management at this company realized that their investment was not delivering any business benefits?

First, there was never any well-defined BI project strategy and scope. As a result, employees were spending money on BI tools without a clear understanding of what they were trying to achieve.

Second, the projects lacked clear ownership and governance. The IT department deployed software licenses with little support or involvement from the business users. Since users were not involved in the planning, design or implementation, many business units rejected the BI tools because of their limited functionality and/or inaccurate reflection of their business practices. As a result, the IT department discovered that many business users continued to use their old Excel spreadsheets or created new solutions that met their needs. The proliferation of these alternative solutions created additional issues regarding compliance and version control within the company.

Third, business users received very little communication or education regarding the BI projects and lacked basic knowledge about the BI concept embedded in the software tools. As a result, the users had unattainable expectations for the new systems.

Fourth, no formal business processes were put in place for the new system. For example, there were several reports that required intervention or time to generate, but
no one took the time to document the formal process for generating the reports or to educate the user on how to do this seemingly simple procedure. Ultimately, users had become frustrated with the BI tools and were not effectively using the technology or, more commonly, were not even using it at all.

Before spending any more money on BI, the senior management recommended that a cross-organizational team – skilled in IT, information management and business intelligence – be created to determine the company’s exact needs and define a clear strategy. This is an important first step that sounds like common sense, but that is surprisingly overlooked by most organizations.

The company did not appreciate the difficulty of realizing value from business intelligence software. A BI system manages unstructured information, so it is very difficult to determine the accuracy of the quality or quantity of information entered into the system. Similar to CRM software, once the new BI system is up and running, users can usually continue to operate using homemade or custom solutions. In a BI system, the employees entering the data are typically not the ones analyzing or using it. Users often do not understand the business value of the information and have no incentive to thoroughly and accurately collect and maintain this data in the BI system. Management ends up basing key business decisions on the inaccurate or incomplete information that has been entered in the system. More time and management effort must be spent educating users on what type of information is required by the company, demonstrating how users can create business value by entering accurate, timely and useful information and providing incentives for users to continually update data in the BI system.

As this global materials management company shows, BI systems can provide little to no value to an organization. This is particularly worrying as a recent survey of IT decision makers at over 1,000 enterprises reported that business intelligence software represented the top application purchase, with 13% planning to purchase BI for the first time in 2007.19

These three examples illustrate the difficulties inherent with IT-enabled business projects. More significantly, they demonstrate how crucial it is for management to focus more time and effort on the organizational and behavioral changes required to realize business value from IT projects. Each IT project varies in the amount of organizational change needed and the amount of value it can create. By understanding these differences, managers can accurately determine the impact each project will have on business processes and users and act appropriately.20

Value is in the Usage: The “Design-for-use” Paradigm

Our evidence is overwhelming: the design-to-build paradigm that underpins the development and execution of most IT implementations today is flawed and incomplete. The current mindset that it propagates, that IT-enabled business projects are primarily about technology deployment, must change and refocus on how people use information and IT to carry out business tasks and processes. When business and IT managers think about deploying new IT systems, they are directly or indirectly redefining how they want their people to work and act with information and IT. The
main reason why IT projects are underachieving is that with the D2B paradigm, there is little or no focus on the actual usage of information and the new technology by people in the workplace. Deploying IT without taking a business-oriented view and focusing on the people changes involved is like building a factory without understanding how it will be used – unthinkable in manufacturing practice, but all too common in IT projects!

We are not saying that deployment teams do not consult and involve users. However, user input is focused primarily how the system is used from a technical standpoint, and little or no attention is paid to how their behaviors or values might need to change in order to optimize usage in their workplace. We firmly believe and our research evidence strongly supports the position that usage should address behavior and culture as well as technical competency. For instance, in a CRM project, the implementation team might ask the sales force to help them determine what type of customer information needs to be managed in the new CRM system. However, even if IT successfully builds a system that meets the sales team’s desired requirements, there is no guarantee that the sales force will use it. If the sales force is not motivated to use the system or shown how to use it, then many salespeople will not spend the time required daily to collect and maintain the data in the system. They also need to develop what has been referred to as “analytical capability” to work with the new information that they now have at their disposal. If a few salespeople start to use the system improperly, other users start to uncover inaccurate or missing data in the system and usage declines even further.

According to a recent study, well-managed technology projects, focusing on deployment, can only provide up to 20% of the potential business value. We argue that if managers can help people effectively use the technology and information, companies can realize the other 80%. If most of the benefits of technology come from changes in the way a company does business and uses information and not from the technology deployment itself, then managers need to look beyond technology-centric solutions to their business problems.

Figure 3 summarizes the distinctions between D2B and D4U project paradigms that we have discerned from our data. Our research provides some interesting findings that are consistent with, but expand upon, the idea that information and IT are not always used in rational ways. It suggests that a key part of any D4U project is helping decision makers to acquire and use information within the context of their relationships with colleagues and the organizational structures and processes that influence how they make decisions. Approaches to managing IT projects defined by the D2B paradigm do not deal with these aspects of organizational context well, lacking a means for analyzing the role that information plays in organizational life.

**Figure 3** Contrasting Project Paradigms (page 23).

Decision making in organizations is mainly concerned with choosing courses of action that will lead to desired outcomes. For this kind of decision making to be effective, it is necessary to understand which causes (i.e. actions) relate to which effects (i.e. outcomes) and the extent to which the causes can be controlled or influenced by people within the organization. At an operational level, we may want to know what causes one production line to break down more often than another. At a
strategic level, we may want to understand the cause of a recent decline in sales. The strategic problem may be less clear than the operational problem since it involves many interacting causes and effects that are hard to separate, but the basic logic is the same: Management interventions are essentially based on cause-and-effect reasoning. Information and IT only benefit decision makers at the operational or management levels when they further decision makers’ understanding of the outcomes that will result from the actions they are able to take. If D4U projects fail to provide this insight, then they are at best a waste of money and, at worst, detrimental to business performance.

Common Knowledge but not Common Practice

There is much research that sheds light on why IT projects are not delivering business value. The majority of studies agree that if companies want to realize value from technology, a significant paradigm shift needs to take place where the primary focus is not on technology itself, but on information and its effective use. Most critics of the current paradigm discuss how IT has no inherent value of its own. If organizations will not use proposed IT systems, the actual technology is worth nothing. Indeed, there is strong evidence that effective usage may be the key variable in explaining the impact of technology on performance and that the omission of this usage variable may be the missing link in the analysis of IT payoffs.

It is crucial for management to understand the business context of a proposed IT investment. By focusing on deployment, IT-enabled change projects quickly become technology-centric projects, rather than business change projects that have an IT component. IT projects should not be considered the exclusive domain of the CIO and IT organization, but instead should be seen as endeavors led by business rather than IT teams. IT specialists can build the technical infrastructure and systems, but can never deliver the changes in organization processes, work practices and business models that will ultimately result in the creation of business value – at least not with current structures, processes, authority patterns and mindsets. Executive management has to become an integral part of IT projects and accept responsibility for a project’s failure or success on business, rather than technology terms.

Our framework for evaluating and measuring effective information usage is the Information Orientation Maturity (IOM) Framework. Developed through extensive research at IMD over the last 10 years, IOM represents the first comprehensive measurement of effective information use in an organization. The IOM Diagnostic assessment measures the extent to which managers perceive that their organizations possess the capabilities associated with effective information use that improves performance. IOM does this by determining the degree to which an organization possesses competence across three vital Information Capabilities:

1) Information Behaviors and Values (IBV): The capabilities of an organization to instill behaviors and values in its people that promote effective information use and application of their knowledge. These include integrity, formality, control, transparency, sharing and proactiveness.
2) Information Management Practices (IMP): The capabilities of an organization to manage information effectively over the life cycle of its use including sensing, collecting, organizing, processing and maintaining information.

3) Information Technology Practices (ITP): The capabilities of an organization to effectively use and manage IT applications and infrastructures to support operations, business processes, innovation and management decision making.

Box 1 (page 25) provides a description of IOM and each of these capabilities. By employing the IOM Framework and Diagnostic, managers can evaluate their information capabilities before, during and after IT-enabled business projects to plan for readiness, to pace deployments and to focus on usage improvement after IT projects go-live. In addition, by doing cause and effect analyses of the results of IOM Diagnostics, managers can develop action plans to leverage strengths and address weaknesses in the information capabilities of their functions, units or organizations as we will illustrate later in our discussion.

Moreover, in order to develop effective usage capabilities, management must determine what benefits they want to achieve and then what capabilities, behaviors, and processes are required before creating a IT-enabled project plan. Benefits do not automatically result from IT implementation, but come from making changes in how people perform their jobs. These changes must be actively identified, planned for and managed before and during project deployment and after the project is complete.

To complement the IOM evaluation of an organization’s information capabilities, the concept of “benefits management” emerged as a result of research carried out at Cranfield School of Management, referring to the process of organizing and managing such that the potential benefits arising from the use of IT are actually realized. The term benefits management was chosen to emphasize the crucial point made above, that benefits arise from the changes made by individuals or groups within or outside the organization. These changes must be identified and managed successfully if the benefits are to be realized. Benefits realization and change management related to information capabilities are therefore inextricably linked. This is obviously the case when the project is explicitly an IT-enabled or techno-change program, but is also true in most contemporary IT projects, except perhaps a limited number of pure infrastructure investments.

The benefits management approach includes a set of linked tools and frameworks that enable organizations to use their collective knowledge and develop answers to these questions and hence produce a benefits realization plan, which will guide both the implementation of the project and the subsequent review process. Box 2 (page 26) provides an overview of this process.

Unfortunately, in many companies, management assumes that people will use technology once it is in place, and fail to assess actual usage of a new IT system. Usage reviews are often done poorly, if at all, yet research has demonstrated a strong correlation between organizations that undertake project retrospectives and project success. Companies need to learn from their past projects by performing project reviews that not only evaluate a project based on time, cost and product but also in terms of use, learning and value. It is important to evaluate a project in terms of these latter three criteria to avoid “failed successes” (process success + outcome failure).
where the technology has been successfully deployed on time and within budget but has not delivered any business value or ROI. 34

Failed IT projects lead to underperforming companies and ultimately can result in job loss. In one study, approximately 75% of companies where IT was generally underperforming, undervalued and largely kept separate from a company’s core business functions recorded a slower rate of growth – 2% below the three-year average in the survey – while spending the same as the average company every year on IT. 35 Executives must start making the shift from the D2B to D4U paradigm because these failed IT projects are not just impacting organizational performance, but are also costing careers. 36 Studies have shown that in the past five years, two thirds of all major companies have replaced their CEOs and a quarter of the CIOs lose their jobs each year. Not being able to successfully deliver critical IT-enabled business projects was one of the primary reasons for these terminations.

Why do Companies Continue to Use the Current Project Management Approaches?

In light of all the dismal statistics, why do so many organizations continue to subscribe to the same project methodologies that have produced little to no business value in the past? First, the current methodologies are frequently touted as best practices by so-called experts such as consultants or software companies and executives expect IT projects to be run conforming to these best practices. Forrester 37 and Gartner’s 38 top ranked project management software companies, PlanView and Primavera Systems, offer products that help companies manage deployments in terms of time, cost, resource allocation and strategic objectives. Well-known software vendors, such as SAP 39 and Microsoft 40 promote project management methodologies grounded in the D2B paradigm (see Figure 4). Most IT consultants also buy into these methodologies and incorporate them into their recommendations to managers responsible for IT project implementation.

Second, current project approaches help IT managers meet project time and budget requirements. In fact, advances in technology have enabled more projects to come on time and within budget as there are fewer software bugs and less customization required. Since most IT managers are held accountable for a project’s time and budget and not for achieving business results, it is not surprising that they continue to use the current methodology and have little incentive to analyze why they are systematically failing to produce projected business results.

Third, managers buy into the D2B paradigm because it is tangible – deployment is visible and can be planned for and measured. In contrast, usage deals with so-called soft issues such as mindsets, behaviors, and values, which are challenging to observe, understand and change. Many managers do not fully understand what shifts in people’s behaviors or practices need to be developed and how to develop them to ensure effective usage of information and technology tools to create business value. The problem is compounded by the fact that it is unclear who is directly responsible for developing these capabilities. 41 From our research, we also find that managers are unaware of the tools or frameworks available to help them assess and develop the appropriate behaviors or capabilities. Since managers, as well as consultants, are paid
according to their ability to execute tasks, most focus their project planning on deployment because it is easy to track and IT has clear authority and control over the technical implementation of new software systems.

**FIGURE 4** IT Deployment Methodologies and the Design-to-build Paradigm (page 23).

**Examples of Design-for-use Project Successes**

There are, however, examples of organizations that have realized the need for a new approach and made changes in how they deploy and use IT to deliver real business value. What are they doing differently? In these organizations, managers actively address organizational and people issues before, during and after any technology deployment.

**Citigroup’s CEEMEA Sales and Trading Unit**

Citigroup CEEMEA (Central and Eastern Europe, Middle East, and Africa) Sales and Trading Unit included Citigroup operations in 31 countries. The countries making up the CEEMEA region had few commonalities in terms of size, language, culture, risk, financial market development, regulatory regime and corporate governance. Country organizations were managed in a decentralized way and were only loosely linked to the central trading hub in London. Performance results, new ideas and best practices were rarely shared between the countries, and there were no proper systems and processes for local markets to report profitability and risks. With this background, how did Citigroup CEEMEA break the current IT paradigm and begin to address organizational issues – process, structure, people – in the deployment of decision-support systems?

In 2000 the company believed that the sales and trading unit had a significant opportunity for improvement and growth compared with the company’s other emerging market business regions. The new leadership team was determined to put this unit on a sustainable growth path and recognized that in order to impact performance, they first had to focus on improving teamwork and information sharing among managers and professionals in the unit. The management team assessed the unit’s ability to effectively manage and use information, people and IT capabilities through an Information Orientation Maturity (IOM) Diagnostic benchmark (see Figure 5).

**FIGURE 5** Information Orientation Maturity Results of Citigroup’s CEEMEA Sales & Trading Unit (page 24).

Figure 5 provides the high level results of the IOM Diagnostic for the Sales and Trading Unit (also known as the Treasury Team). The IOM results highlighted very low scores in all information capabilities that management had identified as key drivers for higher levels of business performance across CEEMEA. It further provided a baseline benchmark that could be used to drive higher levels of business performance across CEEMEA and provided management with a baseline benchmark that could be used to measure any subsequent improvement in the unit’s IOM maturity relative to performance.
Management increased information sharing and teamwork throughout the region. A new business model was developed with stronger relationships and information sharing between the London hub and the country organizations. This hub and spoke model aimed to improve regional operating efficiency, leverage product expertise and market knowledge, and intensify customer focus across the 31 countries of the region. Management hired people with more collaborative values and behaviors and then reinforced qualities such as integrity, transparency, sharing and proactiveness that were needed to develop effective information management. In order to support these new behaviors and information management practices, management focused on providing training, incentives and performance-based rewards for their employees. Employees were able to measure their ability to use information effectively on a quarterly basis through the use of personal and unit scorecards. The scorecards measured very specific and detailed areas of information use for each employee and were used by management as tools to measure and reward an employee’s effectiveness in information use. The use of information and decision making of employees improved significantly.

Only after management had successfully created an environment that supported and encouraged the effective use of information did they decide to implement supporting IT applications. These applications, such as CRM, risk assessment and product innovation, were aimed at managing the fast-moving business and enabling people to be even more effective at sensing, sharing and using information in client engagements, decision making about trading and risk management. Since management had already changed their employee’s values and behaviors, they were able to immediately realize value from the IT applications that they deployed across the unit.

By mid-2003 the unit’s ability to effectively manage and use information had boosted its business performance in a number of ways. The traders were more willing to share trading intelligence on a daily basis and the salespeople focused energy and attention on customer needs and designing new products to meet those needs. Over three years, the EBIT of the business doubled and revenue increased 57%. According to the 2002 Greenwich survey, the percentage of clients who regarded the unit as their “lead bank” in the foreign exchange market and the derivative market increased, respectively to 61% (from 50% in 2001) and 38% (from 22% in 2001). The team also received exceptional client satisfaction scores across the region. Finally, the unit won a number of Euro money awards in 2002, including those for “Best Emerging Market Currencies” and “Best at Risk Management.”

**European Industrial Products Company**

The senior executives at this company set goals of increasing revenues and EBIT through integrating their product offerings for their business clients. One way they intended to do this was to improve the use of customer information throughout the company. Many executives believed that by just providing a standardized CRM system, business units would start to share customer information and cross-selling revenues would increase. Fortunately, the head project team manager had seen the company unsuccessfully roll out CRM projects in the past. What steps did the project manager take to avoid another failure?
First and most importantly, he realized that the real challenge would not be the technical implementation but in encouraging employees to be more customer-focused. The first step the manager took was to make sure all of the business units in the company were well represented in the project team. Once the project team was set, a project plan was developed with four key areas – strategy, process, IT and change management. The main focus of the plan was change management, since the team realized that their ability to change behaviors, processes and mindsets of the employees would ultimately determine the project’s success. They also believed the change management area was the most influential and impacted all other aspects of the plan. The overall implementation plan was clearly communicated company-wide in terms that helped people understand and visualize the business goals of proposed changes as well as their importance and urgency. The business units were also heavily involved in the entire process so they owned the outcomes of the project.

Other elements of the implementation plan that contributed to the project’s success included:

- Development of a common language to describe customer information: The business units had been using different terminology, so even if they were able to share customer information it could often be meaningless. With a common language in place for sales, servicing and marketing, people were able to understand terms, processes and roles.
- Documentation of processes in place for sharing customer information: By involving the business units in the process, the team was able to create and document processes that were understood and supported by the people that had to use them.
- Updating of the roles and responsibilities of the sales force to include data maintenance and quality: the team created a system that not only measured individuals’ performance in these areas, but also rewarded individuals who excelled in information management.
- Maximization of the business units’ contribution to the project: The team set up various channels, which allowed business units to easily communicate issues to the project team for the project team to report on their progress with these issues.
- An ongoing improvement program: This was to ensure that further information usage remained at acceptable levels, after the completion of technical deployment.
- An education program for employees who directly dealt with customers: One tool the team developed was an in-depth sales curriculum, which was required for all of these employees. They also developed project workshops, led by experts in the field, that spent time focusing on helping employees learn more about themselves and the roles they play as individuals within the organization. These workshops were focused on encouraging the desired organizational behaviors, such as the importance of sharing and using information effectively.

By focusing on a range of organizational, behavioral and usage issues, the company was ready and willing to effectively use new CRM software when it was deployed. The number of business opportunities increased from approximately 200 to over 3,400 and key accounts increased from almost 50 to 270.
**Accident Compensation Corporation New Zealand**

New Zealand’s Accident Compensation Corporation (ACC) is the statutory body responsible for accident prevention, compensation and rehabilitation. The government of New Zealand provides accident insurance for all citizens, residents and visitors and in return, those covered do not have the right to sue for personal injury, except for exemplary damages. ACC exclusively manages claims for cover and entitlements for personal injury, work cover and workers’ compensation in a variety of ways, via branches, service centers, central processing units, call centers and specialist units.

To successfully operate the compensation scheme, ACC actively works with, and balances the interests of, a variety of stakeholders with diverse needs and interests, in particular, claimants and funders of the scheme. Over the last decade, it has achieved impressive results including, reductions in levies overall, reductions in levy rates (56% less than those in Australia and 58% less than those in Canada) and reductions in the length of long-term claims. In addition, they have had improvements in stakeholder satisfaction levels and increased staff satisfaction levels.

In 2003, ACC’s Executive Leadership Team, comprised of senior management from every department in the organization, recognized that its core IT systems were struggling to keep pace in supporting quantum improvements in key strategic areas. In particular, they acknowledged that the business processes were running ahead of the technology. They had also identified and extensively investigated a number of key strategic areas for improvement and defined outcomes they were seeking to achieve including effective rehabilitation outcomes, increased levels of staff and claimant satisfaction and reduced rate of injuries and claims.

ACC considered that the necessary outcomes could be achieved with the correct technology and flexible systems. The existing system was a basic operational claims management system that recorded claims. However, as ACC is about people and not just claims, they saw a need to move to a claimant-focused management system. Their analysis also concluded that the existing claims management system was constraining their ability to be agile and respond effectively to client and stakeholder needs.

The unique aspect of the Claims Management System (CMS) program launched by ACC was that many benefits traditionally associated with the implementation of automated claims management systems had already been achieved with the previous system. The benefits included headcount savings, elimination of process clutter and bottlenecks, and reductions in the cost of managing claims. The business case for the investment was thus premised on business agility and flexibility, continuous process improvement, continued reduction of provider and claimant management costs, and improvement of claimant and staff satisfaction levels.

The new system was internally named Eos for “New Beginnings” and work began in 2004. The system initially went live in November 2006 and was fully rolled out and deployed by April 2007. Internally, it was underpinned by a comprehensive change management program that began in January 2005, particularly as staff did not see the need for change. The project team established a brand for the change – “Future Focus” – as they felt strongly that staff needed to identify and connect with the change
Their strategy for the pre-go-live phase was to adopt a phased approach to moving staff through three levels of engagement. The first nine months were spent creating awareness of the need to change. Following this, the project team undertook an assessment of change readiness. This was a mixture of informal “temperature” checks and formal surveys undertaken by an independent company. The next phase, which lasted seven months, focused on building understanding, and again was followed by an assessment of the readiness of staff to accommodate the impending change. The final phase, again lasting seven months, was labeled “implementation,” but actually took place before the actual rollout of EOS. The focus here was on ensuring that there would be a smooth transition to a new way of working once the cut-over took place. During this 23-month period, 15,000 hours of formal training was delivered to 2,000 staff.

The CMS project is one of the largest public sector projects ever undertaken in New Zealand and has delivered to ACC the flexibility and agility it sought to move forward. ACC is well on the way to achieving its original objectives and has also positioned itself as a global best practice organization and a model for Enterprise Claims Management in the industry. In 2008, independent analyst Celent named ACC as a “Model Carrier” for its report of the same name.

### Optimizing the Business Value of IT-enabled Business Projects

Why do managers in the three previously discussed cases succeed in achieving visible and measurable performance improvements in their organizations where others so often fail or underachieve? We believe the essential difference rests with their use of a Design-for-use versus Design-to-build paradigm in implementing IT-enabled business projects. This paradigm shift in the way business managers perceive these projects reflects fundamental differences in the working principles that guide the mindset and actions of their project teams.

1) Business managers do not just support the business change, they lead it.

In D2B projects, business managers are often asked to support and endorse these projects under the principle that acceptance of a project depends on its endorsement by senior managers. In D4U projects, managers are key initiators and actors since successful implementation depends on their vision, strategic priorities and actions to affect necessary changes and realize the anticipated business performance objectives.
2) The project or initiative requires an organizational change, not a technology change.

In D2B projects, the focus of the change effort is on introducing new technology and systems that are intended to modify the processes and behaviors of people affected. In D4U projects, the organizational change is people-centric, driven by changes in mindsets, business language, processes and performance measures. The focus of organizational change is on people involved in business processes first and then on enabling systems and technology, whereas in D2B projects, the focus and most of the project attention and time are on the system and technology implementation first and on change management second.

3) The value of the project is based on effective usage of information and IT by people and not just on going-live.

In D2B projects, the focus of the project team and sponsoring managers is on going live with the new system. Being on-time, on-budget and with required functionality are the driving measures of the project. On the other hand, in D4U projects, the value of the project is whether it will achieve a change in the usage of information and IT by managers and employees in the business processes and activities affected. Business managers in these cases are more concerned with changing the information and IT usage patterns of people in a function or unit rather than on going live as a unique event. Measurement of information and IT usage by people becomes a more critical variable in defining value for the project than going live with IT tools alone.

4) Business value realization is perceived as a process of continuous performance improvement, rather than as a one-time event in the life of the function or unit affected.

In D2B projects, the focus of value realization is necessarily on the ROI analysis justifying the resource needs of the project rather than on value realization after the project goes live. In fact, the go-live event is often seen as the end of the project, rather than the beginning of a usage and value realization effort by those involved with the new system or tools in the workplace. In contrast, with D4U initiatives, business expectations of changing the performance of a function or unit are what drive the initiative and related measures of its success. Value realization in this case becomes a continuing process of motivating the managers and employees affected to effectively manage and utilize information and the appropriate tools in their function or units to drive their performance.

5) Business change is primarily about changing people’s mindsets and behaviors and secondarily about process and IT.

In D2B projects, the focus of the project is on the IT systems and consequent process changes that they introduce. Changes in people behaviors in the workplace are perceived as a product of the process and system change: “If you build it, they will come!” In D4U projects, the focus of the project is on first changing the mindsets and behaviors of managers and employees to enable process and IT system changes to happen. Business leaders in this case perceive the perceptual and behavioral changes as the basis for making process and system changes possible and successful.
Ownership and responsibility of business changes must be assumed by the managers and employees affected and not limited to the sponsors and project team leading the IT implementation process. How effectively this shift in project ownership occurs largely determines the success or failure of business leaders in making it happen.

6) In business change projects, usage and deployment are tightly linked rather than decoupled between go-live and the ongoing usage that follows the launch of new systems or IT tools.

In D2B projects, the ownership and value of the deployment comes first as a driver of the project, rather than the ownership and value of the usage of information and IT associated with a business change effort. The emphasis of the project team is on making the tools or system available and accessible post-go-live, with usability as a secondary concern. In D4U projects, there is a tight linkage between usage and deployment before, during and after the deployment of new systems and tools.

In the “before” stage, the emphasis is on the readiness to change of the people in the function or unit affected. How mature or ready are the people affected to change mindsets, behaviors, values and business practices related to the process and system modifications involved in the business change initiative?

In the “during” stage, how closely linked is the intended functionality of systems and tools to be deployed with the capabilities of the people to use the new systems and tools effectively in their changing work processes and practices? How will the intended user population be prepared to accept, own and use the new system and tools in the work place from day one?

Finally, in the “after” stage, will usage and deployment continue to evolve in tandem – tracking the evolution between the use of information and IT in the workplace and the performance of managers and their people? How will the functionality of the systems and tools used by people continuously stay in step with the learning ability and performance of the function and unit affected? Will deployment capabilities track with usage effectiveness to optimize the business value of the initiative or project?

7) Business change initiatives are about engaging the minds, hearts and values of people in making change happen and achieving shared business results and benefits, and not about possessing new tools, renewing legacy systems or standardizing technology to reduce costs.

In D2B projects, the objectives and drivers of such projects are often set too low. Possessing new technology, going live on time and within budget, and reducing duplication of systems and technology to reduce costs, neither inspire nor win over the hearts, minds and values of business managers and employees. In many cases, the push to “sell” such projects is based on performance measures and targets not shared or understood by the managers and employees. While senior executives may even endorse and support such instrumental objectives along with CIOs, they remain for the vast population of business managers and staff necessary, but not sufficient reasons to engage and own these business changes. In contrast, the D4U paradigm is driven by leaders who link intended business change to the performance goals of the people and units in their organizations. Their focus is not on getting business changes
accepted by users, but on inspiring changes in mindsets and behaviors that benefit both the people involved and the organization at the same time. Thus, in the D4U paradigm, the usage value to people of information practices, new IT systems and process improvements become critical to both ownership and commitment to sustain the changes in their way of doing business and adapting to changes in the business over time.

**Conclusions**

Einstein defined insanity as doing the same thing over and over again and expecting different results. However, in many organizations, despite repeated failures to generate the expected value, IT projects continue to be run in the same way, under a D2B paradigm. On the other hand, some organizations have been using what we have characterized as the D4U paradigm to successfully run projects and business change initiatives for many years. What we have described in this paper is in many ways common sense, but unfortunately it is not common practice.

The foundations of the D2B paradigm and subsequent conceptions of how to deliver IT-enabled business projects have been shaped by a historical need to overcome technological constraints. This was appropriate when facing the technological challenges of processing a multinational’s payroll with less computing power than today’s mobile phones. For some years, we have been moving away from this period of technological constraint into an era where we have the computing power to process and deliver vast quantities of information but this has sometimes made matters worse in terms of organizational and individual worker performance.

In the D4U paradigm, we may be closer to closing a fundamental gap between knowing and doing in business management. Perhaps if we are going to “design to succeed” we need to take the “I” in IT far more seriously that we have ever done as a matter of best business practice.
Figure 1
Implementation Following the Design-to-build project Paradigm

Figure 2
Example of a Global Implementation Roadmap for an Enterprise System

ERP Project Roadmap

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Europe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North America</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LATAM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia Pacific</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall User No.: 60 120 300 550 700
### FIGURE 3
Contrasting Project Paradigms

<table>
<thead>
<tr>
<th>Objective</th>
<th>D2B project paradigm</th>
<th>D4U project paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology implementation</td>
<td></td>
<td>Effective Information use</td>
</tr>
<tr>
<td>Focus of improvement</td>
<td>Data flows</td>
<td>Information sharing, transparency and proactiveness</td>
</tr>
<tr>
<td>Outcome</td>
<td>Rationalized business processes</td>
<td>Improved decision making</td>
</tr>
<tr>
<td>Implementation rationale</td>
<td>Process and systems analysis</td>
<td>Decision analysis and problem solving</td>
</tr>
<tr>
<td>Design process</td>
<td>Create abstract data model to enable all uses of data</td>
<td>Represent cause-effect relationships relevant to specific decisions</td>
</tr>
<tr>
<td>Artifact</td>
<td>Technology</td>
<td>Human</td>
</tr>
<tr>
<td>Conception of events</td>
<td>Data management (i.e. database transactions)</td>
<td>Cognitive events (decisions, attention to information artifacts)</td>
</tr>
</tbody>
</table>

### FIGURE 4
IT Deployment Methodologies and the Design-to-build Paradigm

<table>
<thead>
<tr>
<th>Phases</th>
<th>Project Launch</th>
<th>Project Team Established</th>
<th>Project Planning</th>
<th>Project Execution</th>
<th>Go Live &amp; Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerated SAP Method</td>
<td>1</td>
<td>Project Preparation</td>
<td>Business Blueprint</td>
<td>Realization</td>
<td>Final Preparation &amp; Go Live &amp; Support</td>
</tr>
<tr>
<td>Microsoft CRM Method</td>
<td>1</td>
<td>Plan</td>
<td>Development</td>
<td>Deployement</td>
<td>Post-Deployment</td>
</tr>
</tbody>
</table>

Timeline:
1-3 ms 3-6 ms 6-9 ms
FIGURE 5
Information Orientation Maturity Results of Citigroup’s CEEMEA Sales & Trading Unit

Treasury Team

Explanation
According to the legend on the right, the IO dashboard™ depicts the ranking of a business unit’s or an individual’s responses within our benchmark of competitors.

Copyright © 2023 by enterpriseIQ. All rights reserved.

Not to be used or distributed without written permission.

Based on feedback from Citigroup.
Box 1
The Information Orientation Maturity (IOM) Framework

Information Behaviors and Values (IBV) Capability
The capability of a company to instill and promote behaviors and values in its people for effective use of information.

Sharing
- An organization is called "information proactive" when its members talk about failures, errors and mistakes in an open and constructive manner.
- Transparency is the free exchange of non-sensitive and sensitive information. Sharing occurs between individuals in teams, across functional boundaries and across organizational boundaries (e.g., with customers, suppliers and partners).

Proactiveness
- An organization is called "information proactive" when its members talk about failures, errors and mistakes in an open and constructive manner.
- The capability of a company to manage information effectively over its life cycle.

Information Management Practices (IMP) Capability
The capability of a company to manage information effectively over its life cycle.

Sensing
- An organization is called "information proactive" when its members talk about failures, errors and mistakes in an open and constructive manner.
- The capability of a company to effectively manage appropriate IT applications and infrastructure in support of operational decision-making, and communication processes.

Information Technology Practices (ITP) Capability
The capability of a company to effectively manage appropriate IT applications and infrastructure in support of operational decision-making, and communication processes.

Processing
- An organization is called "information proactive" when its members talk about failures, errors and mistakes in an open and constructive manner.
- The capability of a company to effectively manage appropriate IT applications and infrastructure in support of operational decision-making, and communication processes.

Maintaining
- An organization is called "information proactive" when its members talk about failures, errors and mistakes in an open and constructive manner.
- The capability of a company to effectively manage appropriate IT applications and infrastructure in support of operational decision-making, and communication processes.

Organizing
- An organization is called "information proactive" when its members talk about failures, errors and mistakes in an open and constructive manner.
- The capability of a company to effectively manage appropriate IT applications and infrastructure in support of operational decision-making, and communication processes.

Collecting
- An organization is called "information proactive" when its members talk about failures, errors and mistakes in an open and constructive manner.
- The capability of a company to effectively manage appropriate IT applications and infrastructure in support of operational decision-making, and communication processes.
Box 2
The Cranfield Benefits Management Approach

Research conducted over the last decade at the Information Systems Research Centre at Cranfield School of Management on the issue of IT benefits realization has resulted in a process to drive practice to increase the likelihood of potential benefits being actually realized. This process, illustrated below, is supported by a set of tools and techniques.

The IT benefits management process has five interdependent stages that can be described as follows:

**Identifying and structuring benefits:** The process begins by understanding the business drivers for the project; identifying all the possible benefits, and expressing these in business terms; quantifying and establishing those benefits (“scale and money”) and determining the distribution of the benefits (“where and who?”).

**Planning benefits realization:** Following this, decisions regarding “how” the benefits are going to be achieved, i.e. the business changes required, (including the identification of who will be assigned responsibility) and “when” the changes will be made are determined. Establishing metrics for performance measurement and ongoing monitoring of the project is also important.

**Executing the benefits realization plan:** This is the “making it happen” phase, in essence executing the change management programs. Monitoring progress against the activities of the benefits realization plan is just as important as for the IT development plan.

**Evaluating and reviewing results:** The philosophy of benefits management is that the benefits are tracked during the lifetime of the system. It entails formal reviews of what was and was not achieved in order to maximize the benefits of the project. The project is also evaluated not only to establish learning for future project but also to identify the potential for further benefits.
Endnotes

1 Surveys and reports continue to confirm that the majority of organizations do not realize significant business value from IT-enabled business projects. One recent paper reported that 74% of IT projects from 1994-2002 failed to deliver expected value. See D. Shpilberg, S. Berez, R. Puryear and S. Shah, “Avoiding the alignment trap in information technology,” *MIT Sloan Management Review*, Vol. 49 No. 1, 2007, p 52. A 2005 survey of over 700 executives responsible for IT by IT consultancy CSC and the Financial Executives Research Foundation found that only 10% of companies believed they were getting high returns from IT investments. A 2007 survey by HP and the Economist Intelligence Unit (EIU) reported that 57% of a sample of 1,125 professionals worldwide had positive outcomes in less than half of the IT initiatives in their firms. See 2007. Gartner estimates that “eight out of ten dollars spent on IT is ultimately dead money,” See Gartner Press Release, Oct. 2006. http://www.gartner.com/it/page.jsp?id=497088 last accessed 4.21.08.


15 Over the years there have been a number of high profile cases involving organizations claiming that their ES severely impacted their business. On occasions, the impact was so detrimental that a number of organizations even filed for bankruptcy. For example, FoxMeyer Drug, a $5 billion wholesale drug company, filed for chapter 11, at least in part because of problems with its ERP implementation. Avis Europe took an exceptional charge of £40-45 million related to its decision to scrap its deployment of a new ERP system due to cost overruns and delays. It has
also been suggested that shareholder pressure may have contributed to the ERP shutdown at bed manufacturer Select Comfort Corporation. SEC filings show that Select Comfort management had for months been pressured to spike the project by an institutional shareholder, a New York-based investment firm named Clinton Group Inc. Clinton Group characterized the ERP implementation as significantly over budget and behind schedule, and criticized the bed maker’s leadership as reckless. See J. Scott, “The FoxMeyer drugs’ bankruptcy: Was it a failure of ERP?” in Proceedings of the Association of Information Systems Fifth Americas Conference on Information Systems, Milwaukee, WI (August 1999); “Avis Europe is latest to get stung by IT,” Computer Weekly October 25, 2004; “Select Comfort puts big SAP project into sleep mode,” Computerworld, December 18, 2008 (http://www.computerworld.com/action/article.do?command=viewArticleBasic&amp;articleId=9123820&amp;intsrc=hm_list).

19 http://searchoracle.techtarget.com/originalContent/0,289142,sid41_gci1233170,00.html last accessed April 21, 2008.
32 More details about the complete process and tools and techniques involved can be found in J. Ward and E. Daniel. Benefits Management: Delivering Value from IS and IT Investments, John Wiley & Sons, Chichester, 2005.


