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Kick-Starting Digital Transformation: Four IT Strategies

Keeping pace with IT cycles and managing applications in the age of digital requires an integrated strategy for defining and assessing solutions, enriching collaboration, automating processes and augmenting in-house resources with industry and technology expertise.

Executive Summary

Does your organization have the in-house expertise available and ready to deliver a digital transformation project? Have you suffered "buyer's remorse" after failing to validate application vendors' claims before committing to a solution? Are you looking for a scientific, objective approach for prioritizing the thousands of requirements among divergent stakeholders, and evaluating dozens of solutions against them?

You are not alone.

The digital business agenda demands highly responsive and flexible IT capabilities – obliging organizations to jettison costly, often cumbersome in-house application development in favor of commercial off-the-shelf (COTS) applications. Still, the tasks associated with setting requirements and assessing solutions have not kept pace; companies continue to rely on ad-hoc, manual processes that can create a number of challenges (see Figure 1, next page).

Industry research[1, 2, 3, 4, 5] continues to tell us that a majority of the IT challenges related to digital transformation have to do with requirements definition and solution evaluation. According to one recent research study, in excess of 50% of failures can be traced to four factors: a lack of focus, missing or incomplete requirements, IT complexity and a shortage of required skills. To alleviate this situation and get the biggest bang for the buck, it's best to address these issues early on.

Although this can be tedious for companies that are anxious to start their digital transformation, it is the best way to ensure that requirements are well defined and solutions are properly evaluated.

Tackling digital transformation and its critical but often taxing initial phases mandates a new approach, especially given the increasing emphasis on delivering relevant and rich customer experiences. Poorly orchestrated initiatives can result in faulty decision making, a decline in customer loyalty and lost revenue. Implementing new technologies and processes during these stages can dramatically improve the odds of success in digital transformation.

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Confronting Digital Transformation

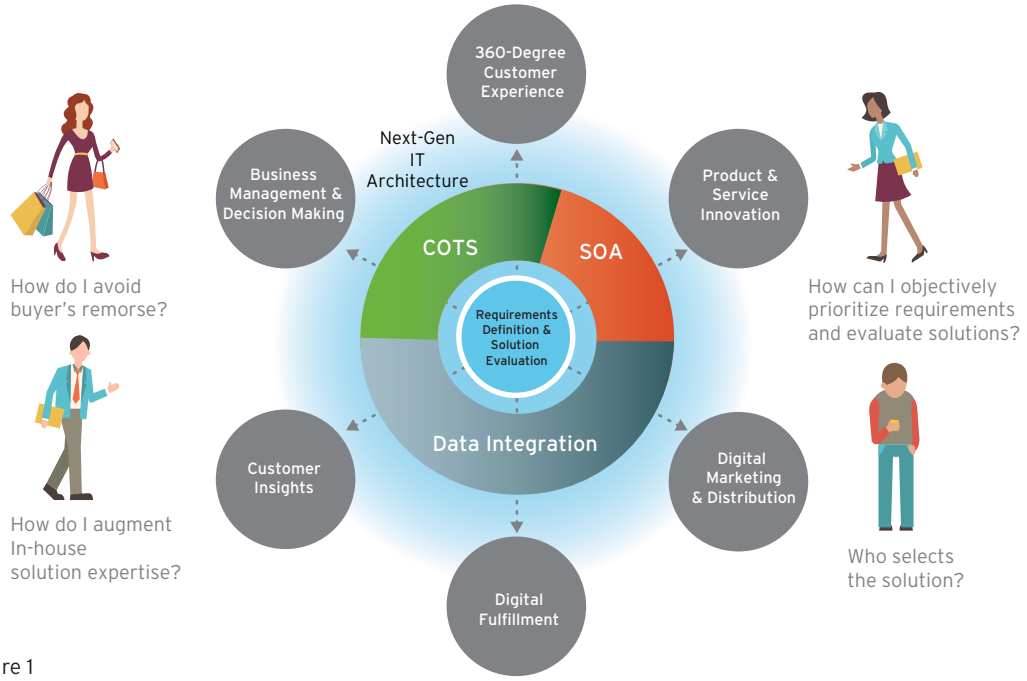


Figure 1

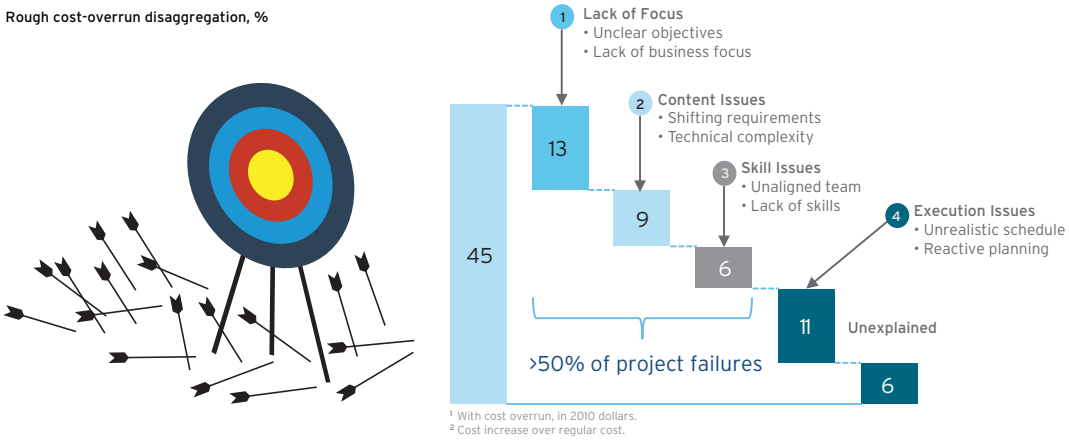
In this paper, we identify four strategies for modernizing the crucial phases of digital-transformation projects and improving their outcomes. We also explore tools and processes that can be applied to deliver optimum benefits and overcome challenges.

Requirements definition and solution evaluation are key steps in today's digital projects, and significantly impact an IT organization's transformation program. Yet traditional approaches for executing these activities are the root cause of most project failures (see Figure 2). Enterprises looking to align their IT infrastructure with evolving digital business objectives need to revamp their process for requirements definition and solution evaluation in order to reap the full benefits of their transformation initiatives. Our experience suggests that an integrated, solutions driven-approach (see Quick Take, p. 3) improves an IT organization's ability to make better decisions, rapidly achieve its objectives, and stay in step with overall business imperatives.

Strategies for Improving the Outcome of Digital Initiatives

What is an integrated, solutions-based approach for requirements definition and solution evaluation? How does it help improve the outcomes of digital

Four Key Reasons Most Projects Fail



Source: *"Delivering Large-Scale IT Projects on Time, on Budget, and on Value."*
Figure 2

Quick Take

Wireless Provider Accelerates Requirements

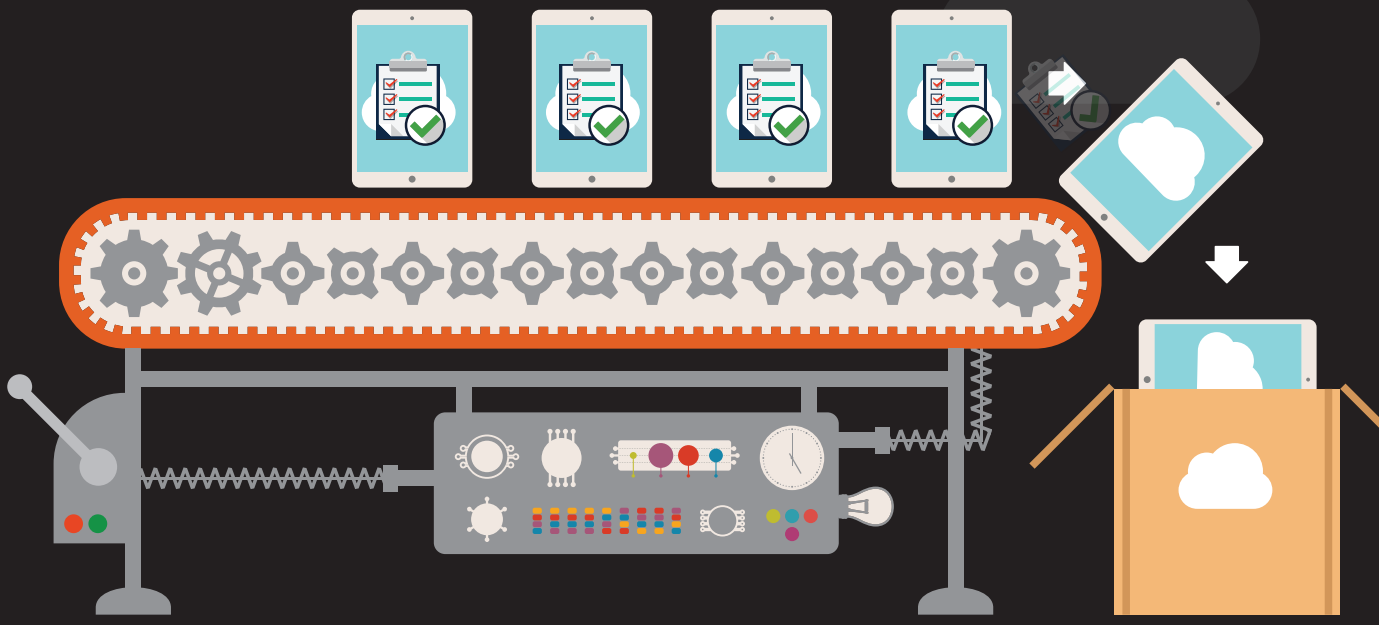
A relatively small but fast-growing wireless service provider had an urgent need to improve time to market (T2M) and product/service flexibility to keep up with its rapid growth. Hoping to save time and money, the business decided against using internal resources for requirements definition and instead reached out to a number of well-known solution (BSS/OSS) vendors. Every vendor contacted suggested a complete overhaul of the company's existing application stack, using their (the vendors') own suite of applications. The prohibitively large implementation would not only be costly, but also extend over several years – compelling the company to rethink its strategy.

The wireless provider's billing and product-catalog applications made up the bulk of its IT architecture. Our ready-made, comprehensive checklists enabled the company to map out detailed solution requirements and rapidly obtain stakeholder consensus. By providing actionable information, the checklists allowed the company to quickly separate the "unnecessary" from the "essential" and clearly define and agree upon the scope of its transformation initiative across multiple and divergent business units. The checklists eliminated the need for stakeholders to develop requirements "from scratch" and minimized the disruption to the company's business units.

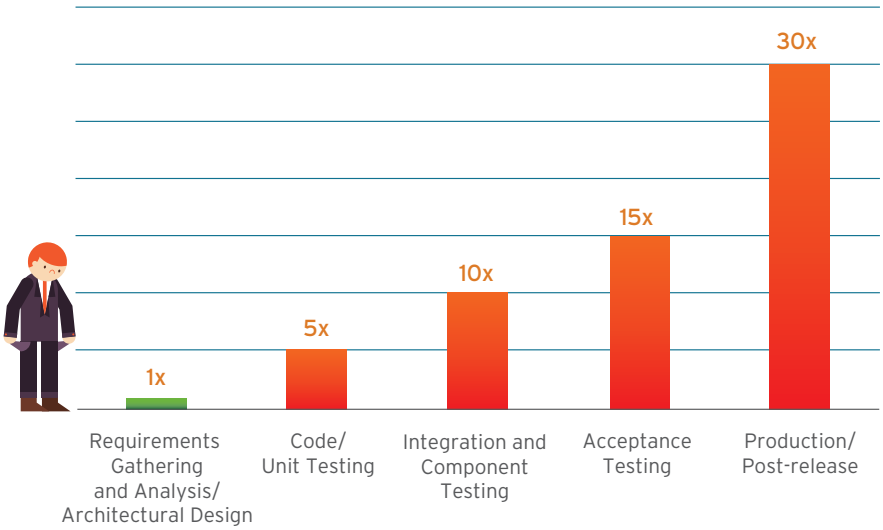
With the assistance of an automated prioritization and option-ranking algorithm, requirements were then objectively evaluated against dozens of commercial off-the-shelf (COTS) billing solutions.

The fact that the requirements checklist was pre-integrated with the prioritization and option-ranking algorithm helped ensure that each stakeholder was able to rank the solution requirements at their convenience, without being influenced by others. The algorithm itself had a solid mathematical foundation, was transparent, and relied on the relative importance of each requirement to define solution priorities – helping to secure stakeholder buy-in. The automated nature of the algorithm ensured virtually instantaneous results once all stakeholder inputs were captured. This enabled the service provider to choose the right solution for its specific digital business needs, reduce decision-making time from months to weeks, and align stakeholders' interests with value-focused business imperatives.

The service provider avoided having to deal with expensive, hyper-inflated vendor estimates and claims that can drain budgets and harm stakeholder relationships.



The Cost of Missed Opportunities in Requirements Definition & Solution Evaluation



Source: National Institute of Standards & Technology, "The Economic Impacts of Inadequate Infrastructure for Software Testing."
Figure 3

projects? Our proposed method consists of four essential components that together enable closer stakeholder collaboration, automate requirements prioritization and solution evaluation, and augment in-house knowledge with industry data and solution expertise. This cost-effective approach helps IT organizations manage stakeholders, technologies and other vital resources more efficiently – from inception to completion.

1 Off-the-Shelf Requirements Checklist

The need for solid solution expertise peaks during the requirements-definition and solution-evaluation phases. Yet many organizations find themselves financially constrained when it comes to acquiring resources with tailored skills, or unable to obtain them from somewhere else in the business. Even companies with deep pockets struggle to continuously build IT and domain expertise in today's constantly evolving technology environment. The result is a lack of in-house resources during this crucial stage. While some organizations understand the technology issue and pull in external experts and business analysts, others choose to risk going it alone.

Although engaging experts during the initial stages of a transformation project is a good idea, it can be costly and time-consuming. A more efficient, less expensive option for managing requirements definition is an off-the-shelf checklist developed by domain and solution experts (see Quick Take, p. 5). These comprehensive, customizable checklists are ready-made, with functional and technical requirements documented at a sufficiently granular level. This enables business and IT stakeholders to easily understand and communicate the level of performance expected of a solution. The checklists are very effective during the initial phases of a project – enabling companies to:

- **Improve time to market:** OTS requirements checklists as described eliminate the need to start from scratch – transforming requirements definition from a data-gathering effort to a data-filtering exercise, and making the process easier and faster to execute.
- **Mitigate project risk:** Expert OTS checklists mitigate the risks of missed or incorrect requirements by providing ready reference points and input from experienced solution and domain professionals. Users are less likely to overlook what is in front of them, and avoid having to conduct research and identify requirements on their own.
- **Customize requirements:** Every business is unique, and no one solution can fit all. Customizable checklists allow users to prioritize requirements and distinguish between useful

Quick Take

Off-the-Shelf Requirements Checklist

- **Accelerate Time to Market**
  - Eliminate the need to start from scratch.
  - Transform the requirements definition exercise from a data-gathering effort into a data-filtering exercise.
- **Minimize Project Risk**
  - Mitigate the risks of missed and/or incorrect requirements.
  - Avoid users having to research and identify requirements on their own.
- **Customize Requirements**
  - Allow users to separate the useful from the unnecessary.
  - Reduce complexity and solidify the project scope.
  - Obtain external experts to augment in-house capabilities.
- **Manage Project Costs**
  - Obtain external experts to augment in-house capabilities.

Online Collaboration Platform Checklist

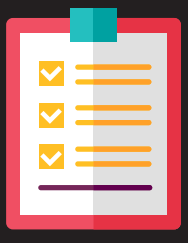
- **Enrich Stakeholder Collaboration**
  - Make it easy to create and administer requirement and solution surveys.
  - Allow stakeholders to contribute at their own pace within project timelines.
  - Virtual iteration and review provides a continuous feedback loop.
- **Mitigate Project Risk**
  - Employ more rigorous requirements-definition and solution-evaluation.
  - Source requirements from a wider stakeholder base.
  - Crowd-source diverse expertise across the organization.
- **Avoid High Project Costs**
  - Eliminate the need for face-to-face meetings and workshops.
  - Minimize the impact on individual and business-unit productivity.

Automated Algorithm Checklist

- **Reduce Complexity**
  - Employ a scientific, scalable foundation for handling thousands of requirements across dozens of solutions.
  - Allow stakeholders to focus on their individual priorities.
  - Avoid the complexity that arises when priorities clash.
- **Gain Stakeholder Consensus**
  - Avoid contention on decision outcomes.
  - Consider all stakeholder inputs and evaluate them against business objectives.
- **Accelerate Time to Market**
  - Evaluate individual solutions faster, against thousands of detailed requirements.

Figure 6

Off-the-Shelf Solution Checklist



- **Accelerate Time to Market**
  - Significantly reduce time spent on secondary research and RFI/RFP data-gathering.
  - Save more time by integrating with OTS requirements checklists.
- **Gain Stakeholder Consensus**
  - In an online collaboration environment, can serve as a reference for stakeholders.
  - Help stakeholders make more informed decisions and resolve conflicts.
- **Manage Project Costs**
  - Augment in-house expertise across technologies and business areas.
  - Provide insights and information that may not be available otherwise.

and unnecessary options. This helps reduce complexity and solidify project scope.

- **Reduce costs:** OTS checklists can be obtained from external experts to augment a company's in-house capabilities across different technologies and business areas – without having to invest in building long-term in-house expertise for one-off projects.

2 Online Stakeholder Collaboration Platform

Generating a robust set of requirements is a recursive process involving various types of technical and business expertise. It therefore requires continuous stakeholder involvement. Organizations generally rely on analyst-driven workshops, playbooks or brainstorming sessions to obtain input from stakeholders, whose locations can span multiple geographies and time zones, and who are likely to have varying, multiple and often conflicting schedules.

Understandably, the logistics and planning around stakeholder collaboration can pose a challenge in complex organizations. The physical limitations of bringing stakeholders together means balancing project risks (missed input) against project costs (travel, affected BU work). Managing resources and stakeholders using traditional collaboration approaches runs the risk of lower BU productivity, multi-project exhaustion and discontent among the involved stakeholders.

An enterprise-grade, 24x7 collaboration platform addresses these challenges by allowing stakeholders across the company to work together at their convenience (see Quick Take, p. 5). This type of platform[7] enables participants to virtually engage in OTS requirements checklists and leverage the math behind a requirements prioritization and option-ranking algorithm – giving companies the opportunity to:

- **Enhance collaboration:** Enterprises can easily create and administer requirement and solution surveys. Stakeholders can contribute their input at their own pace while adhering to project timelines. This makes the initial phases of requirements-gathering easier, increases transparency, and enables virtual iteration and review – providing a continuous feedback loop that is sensitive to time zones, schedules and multiple organizational priorities.
- **Control risk:** The type of collaboration platform we describe also affords a more rigorous process for requirements-definition and solution-evaluation. As physical/location-dependent limitations are lifted, it is possible to source requirements from a wider stakeholder base, instead of from just a few and often over-represented BU representatives. This helps assure that requirements and solutions are aligned with business units' objectives.

The ability to crowdsource diverse expertise across the organization also increases the odds of end-user acceptance of the final solution.[8, 9]

- **Reduce costs:** The collaboration platform eliminates the need for costly face-to-face meetings and requirements workshops. Since stakeholders can contribute at a convenient time and place (while adhering to project timelines), the process becomes less intrusive – minimizing the impact on both individual and business-unit productivity.

3 Prioritization & Option-Ranking Algorithm

As they say, "The squeaky wheel gets the grease." We've all witnessed requirements prioritization workshops where people who dominate the conversation seem to emerge with requirements ranked above those of others who express their needs in logical and strategic terms. That said, for many organizations, commissioning a new software solution or replacing an existing one is a relatively rare event. It is likely that the IT team lacks an unbiased evaluation method for undertaking this task. Even in instances where companies have developed such an approach, implementation complexity and insufficient automation can drive stakeholders to opt for a more subjective alternative, which can prolong decision making and culminate in a sub-optimal solution. A domain-agnostic, scientific and automated algorithm for solution evaluation, sourced from a qualified vendor or developed in-house, can address this issue (see Quick Take, p. 5). When integrated with OTS requirements checklists and an online collaboration platform, this is an effective way to build consensus and accelerate decision making at the beginning of a project. This enables organizations to:

- **Reduce complexity:** An effective algorithm is scalable – able to handle thousands of re-

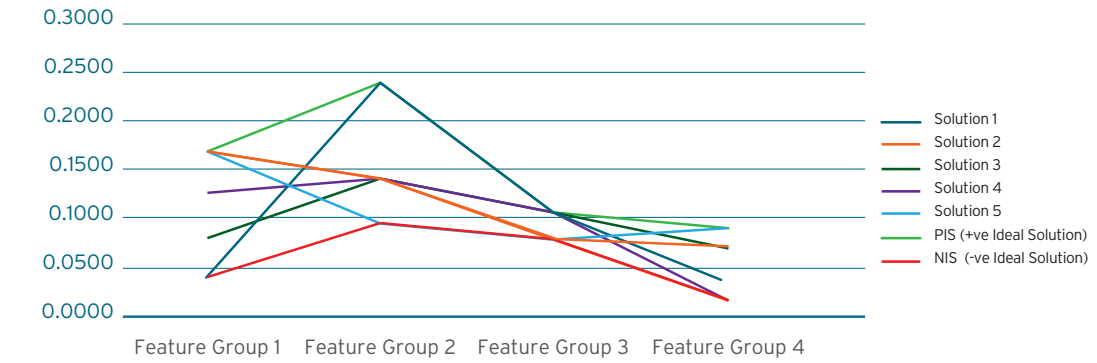


Figure 4

quirements across dozens of solutions, supported by a solid scientific foundation. This helps reduce the complexities around decision making by allowing stakeholders to focus solely on their individual priorities.

- **Gain stakeholder consensus:** Once the workings of the algorithm are understood and verified by all stakeholders, there is little room left for contention; an objective, transparent algorithm considers all stakeholder input, and evaluates them against the defined business objectives to arrive at a decision (see Figure 4 above).
- **Improve time to market:** An automated, scalable algorithm exponentially reduces the time to evaluate individual solutions against thousands of detailed requirements.

4 Off-the-Shelf Solution Ratings

Off-the-shelf solution ratings take OTS requirements checklists one step further. These ready-made, expert assessments rank COTS solutions against thousands of detailed technical and functional requirements (see Quick Take, p. 5). To be practical and of any real value, these ratings must be based on sufficiently granular requirements. The ratings follow a common scale across comparable solutions in a domain with clear explanations of the criteria and rationale behind a given score. Using OTS solution ratings together with the other three components of the integrated solutions approach can help organizations:

- **Accelerate time to market:** Ready-made solution ratings with detailed examples and explanations can significantly cut the time spent on secondary research and RFI-/RFP-based data-gathering. Even more time can be saved if the solution ratings are integrated with OTS requirements checklists for solution evaluation.
- **Gain stakeholder consensus:** In an online collaboration environment, ready-made solution ratings with detailed descriptions can serve as a reference to help stakeholders choose the best solution for their business needs, make more informed decisions and avoid conflicts (see Figure 6 above).
- **Reduce costs:** For an IT organization, the need to compare available domain- and technology-specific solutions is a one-time requirement. Ready-made ratings are thus ideal for augmenting in-house expertise across various technology platforms and business areas on demand, as opposed to building long-term, solution-specific expertise in-house, with little potential for reuse. These ratings also provide insights and information that may not be otherwise available in a traditional RFI/RFP scenario – thereby avoiding costs arising down the line due to insufficient information.

In our experience, an integrated, solutions-driven approach circumvents the common pitfalls of traditional requirements definition by automating and streamlining the entire process (see Figure 5, next page).

Integrated, Automated Requirements Definition vs. Traditional Approach

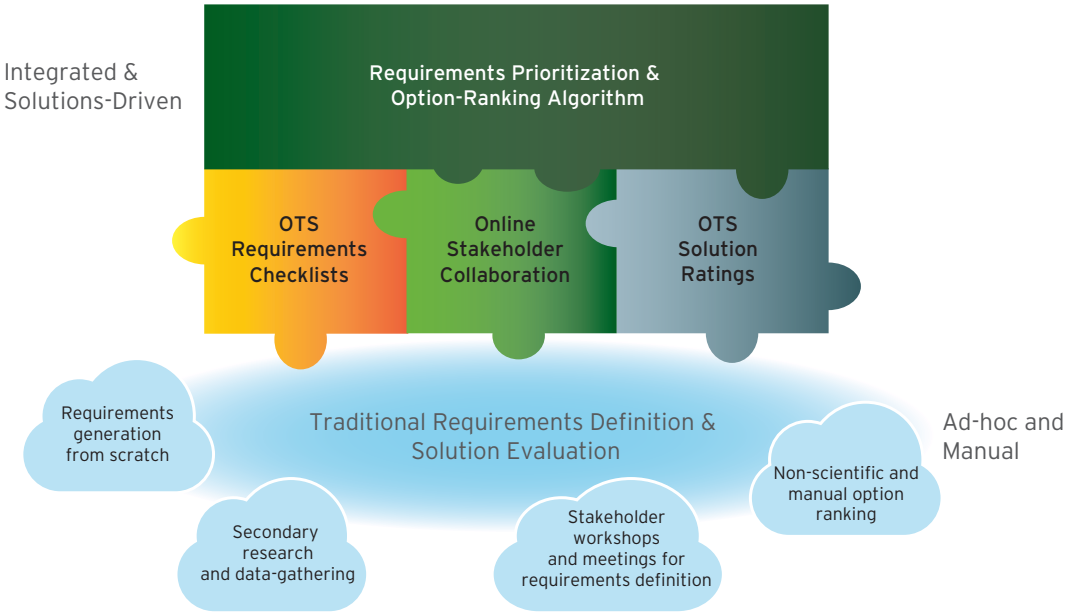


Figure 5

Looking Forward

Because the initial phases of transformation projects involve a lot of uncertainty, they provide the best opportunities for project teams to offer their input. At the same time, the processes associated with traditional requirements definition and solution assessment make it hard to strike the right balance between managing uncertainty and promoting creativity. Our recommendations:

- Review and streamline the requirements-definition and solution-evaluation phases in light of modern technologies for collaboration, information-sharing, option evaluation and ranking automation.
- Enterprise-wide social platforms aimed at improving employee interaction are now commonplace, and already in use by many companies. Organizations can restructure the initial phases of digital projects around these platforms and broaden stakeholder participation with minimal upfront investment.
- IT organizations must realize that much of their research requirements are short-term and not unique. A significant amount of resources and legwork can be saved by repurposing domain and technology research available elsewhere in the supply chain.
- Choose experienced vendor partners that can provide cost-effective, reusable assets across specific technology and domain areas, and augment in-house expertise during the early stages of a project.

Although companies embarking on a digital transformation may find it tempting to dive head-first into the project, it's important to tackle the initial phases before kick-starting digital initiatives in order to realize their full potential.

Footnotes

[1] McKinsey, "Delivering Large-Scale IT projects on Time, on Budget, and on Value," Exhibit 2. http://www.mckinsey.com/insights/business_technology/delivering_large-scale_it_projects_on_time_on_budget_and_on_value

[2] PMI, "Why do Projects Really Fail?" Peter Fretty. http://www.pmi.org/learning/why-projects-really-fail-avoid-4138

[3] PMI, "Top Reasons Projects Fail." Rita Mulcahy. http://www.pmi.org/learning/top-reasons-projects-fail-1124

[4] PMI, "Seven Causes of Project Failure." Richard Discenza and James B. Forman.

[5] PMI,"Project Failure-12 Mistakes to Avoid." Dennis Sommer. http://www.maturityresearch.com/novosite/biblio/Trabalho_Project_Failure.pdf

[6] National Institute of Standards & Technology, "The Economic Impacts of Inadequate Infrastructure for Software Testing," Table 5-2. http://www.nist.gov/director/planning/upload/report02-3.pdf

[7] Sharepoint. https://products.office.com/en-us/SharePoint/sharepoint-2013-overview-collaboration-software-features Jive. https://www.jivesoftware.com/products/jive-n/ Podio. https://podio.com/site/en/tour

[8] http://innovationpov.com/lays-flavor-frito-lay-benefits-crowdsourcing/

[9] http://www.crowdsourcing.org/editorial/budweiser-dons-a-black-crown-crowdsources-a-new-brew/21327

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