

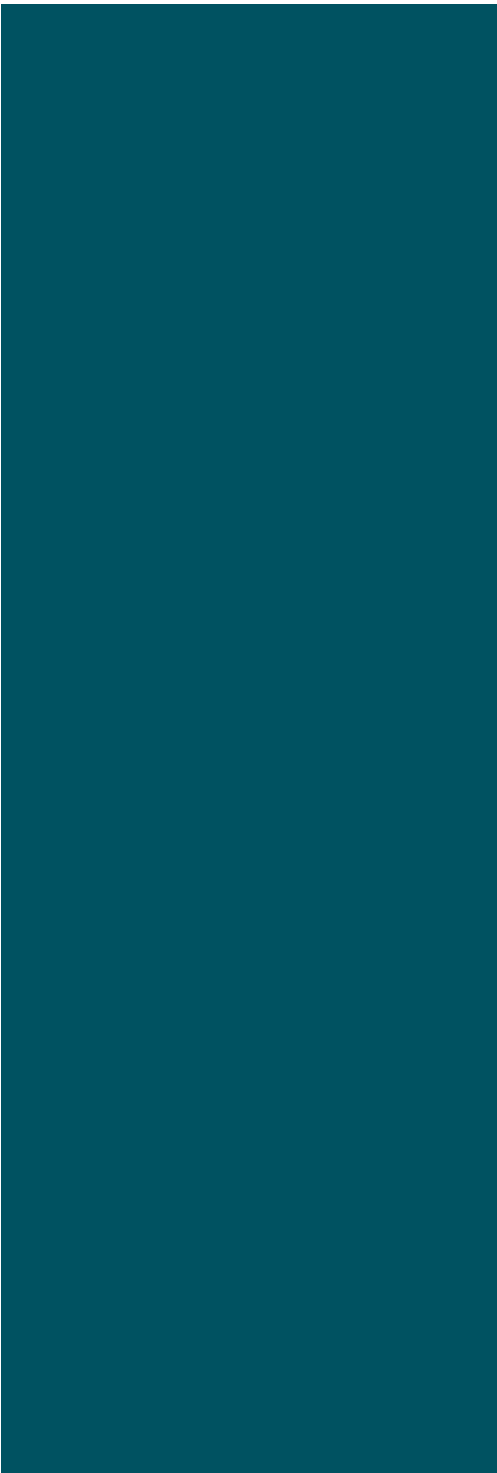


cutting through complexity™

Blueprints and roadmaps support successful transformation

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Blueprints and roadmaps support successful transformation



The innovation wave in both business and technology has led to unprecedented levels of change in large private and public sector organizations. The ability of most organizations to govern the rate and scale of change has been sorely taxed. Industry surveys indicate that:

- Half of the benefits promised by IT-supported transformation initiatives fail to materialize
- Over half of IT-supported transformation projects routinely deliver late, deliver less and exceed their budgets.

This paper makes the case for using enterprise architecture and project portfolio management to significantly increase the probability of successful transformation.

Rapid business and technological innovation defines our business environment. Innovation may be defined as “embodying, combining, or synthesizing knowledge in original, relevant, valued new products, processes, or services.”¹

The adoption of technologies in particular, has driven transformation at three levels.

1. Business or economic model

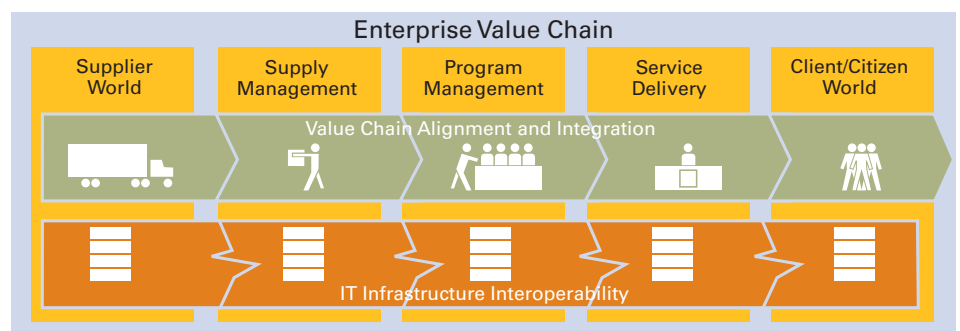
Companies like Google have rewritten the software economic model from collecting licensing revenues for packages to generating revenue from advertisers while customers use Google’s software services for free. Public sector organizations have turned to public-private partnerships to access capital markets to fund the costs of developing and rebuilding public infrastructure.

2. Products and services

Organizations are engaging their customers and third party organizations to collaborate over the Web in the development of new products and services. Procter and Gamble has increased the proportion of new products from external research and development sources from less than a fifth to around a half in less than a decade, while Lego Mindstorms has actively brought customers into the new product development process.²

3. Processes

Organizations are using the web to reduce transaction costs and introduce new channels leading to greater self-service and increased outsourcing and off-shoring of business processes.



¹ Luecke, Richard; Ralph Katz, Managing Creativity and Innovation. Boston, MA: Harvard Business School Press, 2003

² Special Report on Innovation, The Economist, October, 2007

The challenge of transforming value chains

These innovation-driven business strategies are transforming corporate and public sector value chains (see Figure 1). Enterprise service delivery strategies are transforming traditional delivery channels.

Sometimes these strategies open up direct channels (e.g. disintermediating traditional brokerage functions) or create new value-added opportunities (e.g. electronic brokerage services allowing price comparisons between products).

Enterprise shared service and outsourcing strategies are also transforming traditional supply chains.

All of these innovations require:

- Careful business process design to ensure that the interests of, and work performed by, all parties in a value chain are aligned and integrated
- The IT infrastructures of all parties in the value chain support increased demands for business, semantic and technical inter-operability.

For example, the trend to direct service delivery in the insurance industry is causing channel conflict with traditional insurance brokers. To protect the broker channel, insurance companies are having to rethink the broker relationship to drive high value, lower volume business through the broker channel and lower value, high volume business through the direct channel. At the same time, they are discovering that the “16 by 6” world imposed by mainframe systems management policies is a significant constraint to new eServices in the “24 by 7” world of the direct channel.

The challenge of aligning business and IT

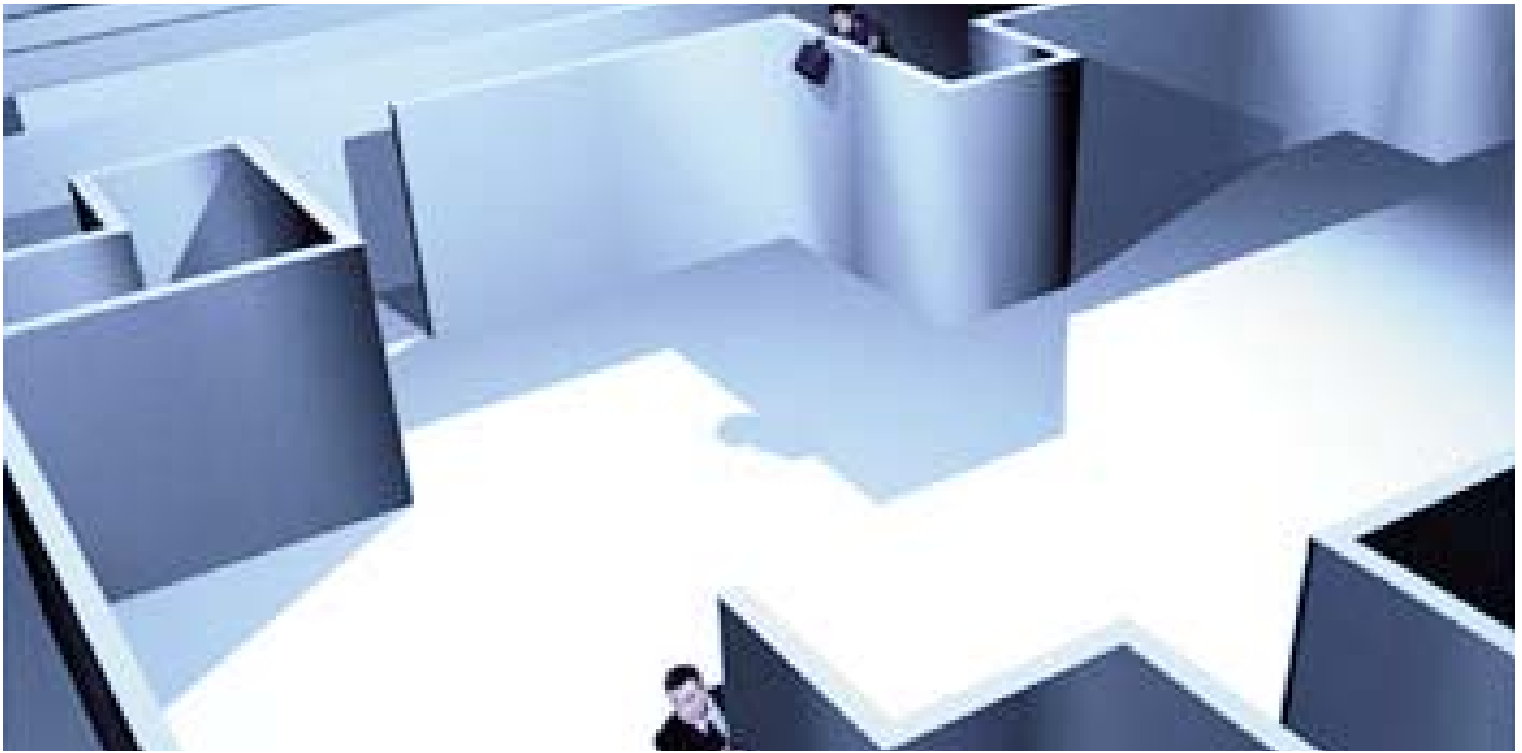
Transforming enterprise value chains therefore raises a second alignment challenge: the alignment between business and its enabling information technology. Misalignment between business and IT has a number of root causes.

The two worlds operate on different change cycles. In the world of business, the investment capacity of private sector enterprises is driven by the business cycle and their competitive position is driven by ever-shorter product life cycles. In the public sector, public programs are driven by the electoral cycle and changes in government mandate.

Although technological innovation appears to be extremely rapid, the world of technology runs on a 30 year innovation cycle from original discovery of a technology to the point where it is taken for granted in the fabric of our daily lives.

The first experiments in the TCP/IP protocol of the internet were conducted in the early 1970s. Thirty years later, TCP/IP was ubiquitous. The apparent rapidity of technological innovation comes from the fact that so many different, disruptive technologies are coming in wave after wave. From the integrated circuit to digital networking to wireless technology, each new technology opens up potential business innovations.

Given the length of the IT cycle and the scale of investment in application systems, the life cycle of application systems has ranged from decades (mainframe systems from the 1970s still power many enterprises) to 10 or 15 years (the client-server world of ERP packages like SAP's R/3). Increasingly, the application system life cycle is longer than the product life cycle of the businesses they are supporting.



The two worlds have, until recently, used quite different design disciplines and notations. Business design has been driven by strategic planning, business process re-engineering and total quality management disciplines and practices.

Systems design has been driven by classical functional decomposition and data modeling techniques and notations. In recent years, the disciplines of enterprise architecture and business object modeling have attempted to bridge the gap between these two design worlds to ensure greater alignment between business and IT strategies and designs.

The business transformation tar pit

The scope and scale of such transformation initiatives and the misalignment between business strategy and its supporting IT systems are straining the capabilities and capacities of organizations to deliver them. Many initiatives are ending up mired in the complexity of the “transformation tar pit”

The Ontario government’s special task force report on large scale systems projects recently concluded that “large IT projects rarely fail due to IT problems alone. In fact, most projects that struggle are engaged in major business transformation however, the organization fails to appreciate the extent of this change, and consequently fails to manage it accordingly.”

Chaos and Complexity

For a dozen years, the Standish Group has chronicled the woes of large IT projects in its aptly named “Chaos Report.” From its benchmark study in 1994 to its most recent report, Standish reports an improvement in project success rates, albeit from a rather dismal start. In 1994, Standish reported that only 17 percent of projects came in on time, on budget and within scope.

Since then, success rates have reportedly doubled, but this still leaves almost two-thirds of IT projects as either:

- Failed projects

Approximately 16 to 19 percent of all projects are cancelled before completion and provide no deliverables

- Challenged projects

46 percent to 51 percent of projects:

- Exceed their schedules by about 82 percent
- Deliver, on average, only half of their features and functions.
- Over-run their budgets by approximately 43 percent

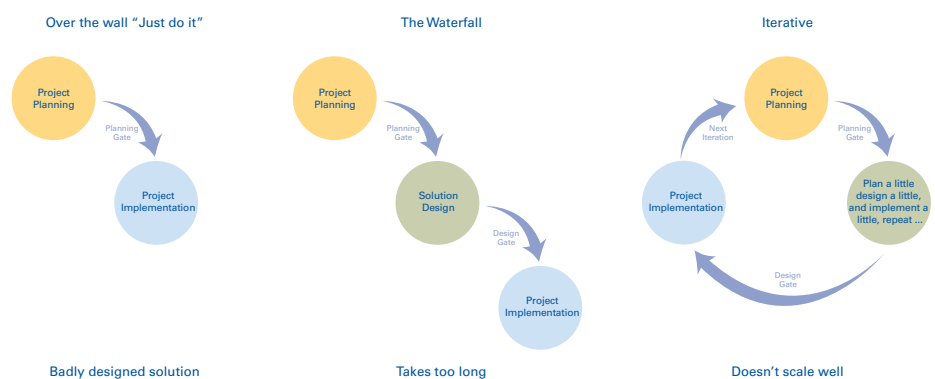
Traditional project governance doesn't help

A naïve executive, when faced by the challenge of innovation, might want to “let 1,000 flowers bloom” and see what happens. However, the innovation stakes have risen too high. When attempting business model innovation, an organization is “betting the company” which explains the rather cautious approach of Microsoft, Oracle and SAP to Google’s new software business model. Failed product innovations can erode brand and customer confidence. Failed process innovation can drive up costs while potentially degrading quality and cycle times.

Our traditional approaches to governing projects cannot tackle the scale of transformation that our strategies require

- Figure 2 illustrates our traditional approaches to project governance.

Figure 2. Traditional project governance impedes transformation success



1. Over the wall

The “just do it” approach typically has one gate between planning an innovation project and implementing it. This approach leads to badly designed innovation solutions.

2. The waterfall

Project management disciplines introduced a design gate to ensure that there were clear design specifications for the required solution before projects were implemented.

When tackling large scale transformation, the planning and design stages take too long, eroding the competitive advantage of being first to market.

3. Iterative planning and design

To support quick wins and time to market, project managers carved up the scope of larger projects into a series of projects that iterated through the planning, design and implementation stages. Transformation projects often have very large scope that the iterative approach cannot be easily managed.



Escape from the tar pit

Transformation initiatives employ innovative strategies such as the implementation of a direct eChannel with customers. They typically cross multiple lines of business or program areas and require 2 to 4 years to implement.

Effective governance requires the guidance of architectural blue prints and project portfolio road maps. The discipline of enterprise architecture provides a set of strategic-level business and IT designs to guide a transformation initiative over its life cycle.

Project portfolio management is analogous to investment portfolio management in that projects are evaluated on the benefits they return against the investment made.

The discipline of project portfolio management gates investment in transformation projects to funnel the required resources to high value projects that are aligned with the innovation strategy.

Project portfolio managers use enterprise architecture blueprints to:

- Understand the relative value and strategic significance of proposed initiatives
- Minimize gaps and overlaps in projects that are approved for implementation
- Carefully constrain the size and duration of individual projects within the portfolio
- Manage dependencies between projects.

The combination of enterprise architecture blue prints and project portfolio road maps has the requisite scale to manage the complexity of large transformation projects.

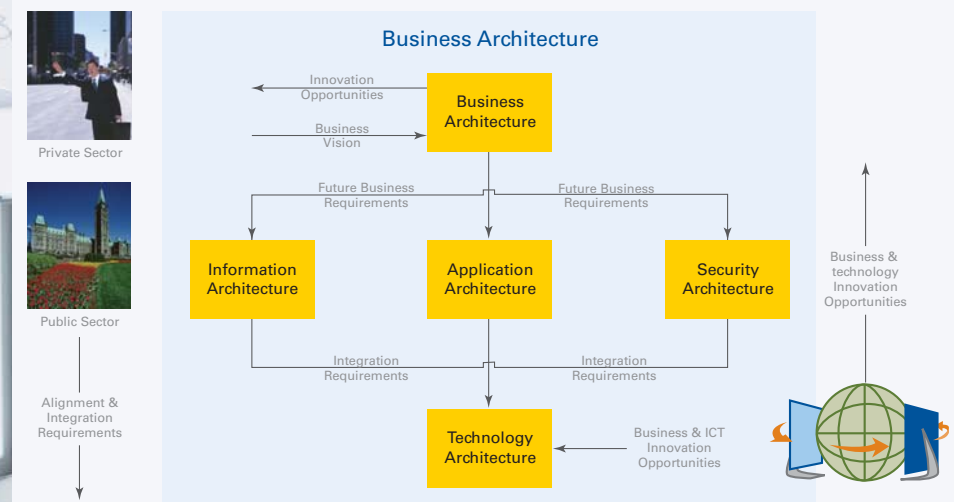
Enterprise architecture provides the blueprints

In planning a portfolio, transformation managers will schedule the development or updating of an enterprise architecture to provide the strategic level blueprints.

To ensure that information systems are aligned with business strategy, the discipline of enterprise architecture creates a set of business and systems blueprints that reflect and align changes in business and IT strategy. Business architects convey to the business the innovation opportunities arising from the world of technology. They create business designs based on the emerging business vision and strategy from the executive leadership team of the business.

These business blueprints form the basis for future business requirements for information, processing, security and integration solutions from information systems providers (see Figure 3). Information, application, security and technology architects each design the required systems, initially at the strategic level, to guide portfolio planning, and later at the detailed solutions level to support individual implementation projects.

Figure 3 The world of enterprise architecture



Portfolio management provides the road maps

Portfolio managers use the blueprints to devise a portfolio of smaller projects, each tackling a piece of the transformation puzzle. Individual projects are then implemented using the iterative approach: planning the project, designing the portion of the transformation solution assigned to the project and implementing.

Portfolio management runs on an annual budget cycle with quarterly reviews (see Figure 4). Mature project portfolio management practices will provide a three year investment horizon but will approve projects for actual implementation on an annual or quarterly basis.

Implementation projects run on weekly or monthly cycles, depending on project size.

Standish indicates that successful projects have very limited scope, schedule and resources; they advocate projects that run from four to six months involving a team of four to six individuals.



Figure 4. Portfolio planning and enterprise architecture support effective change management

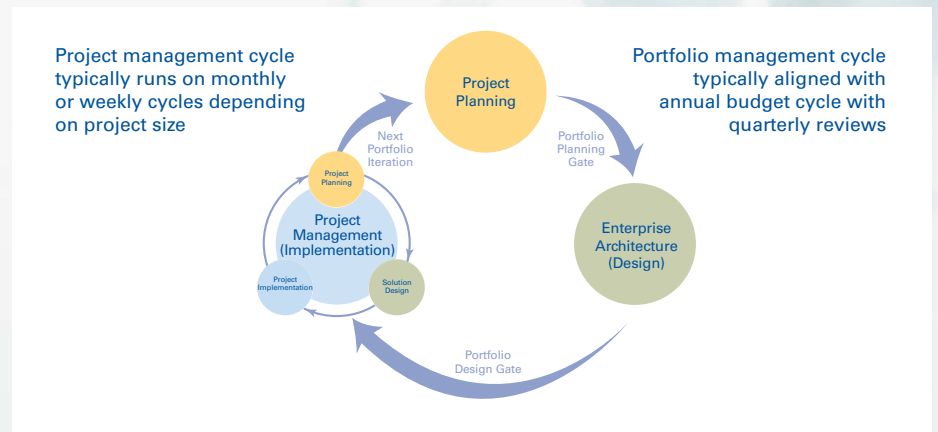


Figure 5. Architecture guides transformation projects

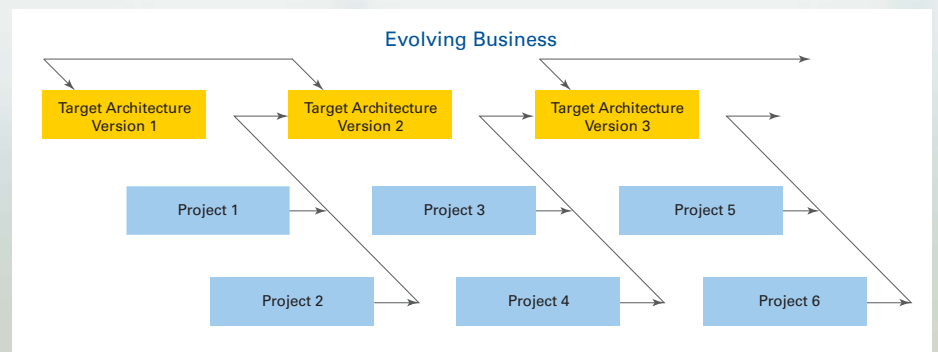


Figure 5 illustrates a mature transformation management approach to governing the pace of innovation in an enterprise. Target architecture versions (the enterprise “blueprints”) identify a portfolio of projects required to implement the technology solutions strategy (a “road map”). Each individual project provides a “solution” to a capability requirement of the business.

Solution design is governed by the target enterprise architecture. As each project is implemented, the target architecture is updated. Individual projects include the replacement or enhancement of existing systems, implementation of new systems, and migration of data from existing to new systems.

The benefits are significant

The benefits of enterprise architecture and project portfolio management are significant.

A set of enterprise level blueprints for a given transformation can reduce project costs by eliminating duplication of scope among projects in a portfolio.

For example, five projects might be delivering customer relationship management functions in the initial portfolio. By “refactoring” the customer relationship management functions, the number of projects might be reduced to 3 projects (eg, customer contact management, order management and case management) with no redundant functions.

Refactoring can lead to a 20-30 percent reduction in “project portfolio” costs (Forrester Research) particularly when using a “service-oriented architecture” approach.

Let us assume that we can make a 25% improvement in project success rates and a 13% reduction in portfolio scope through the elimination of overlapping functions.

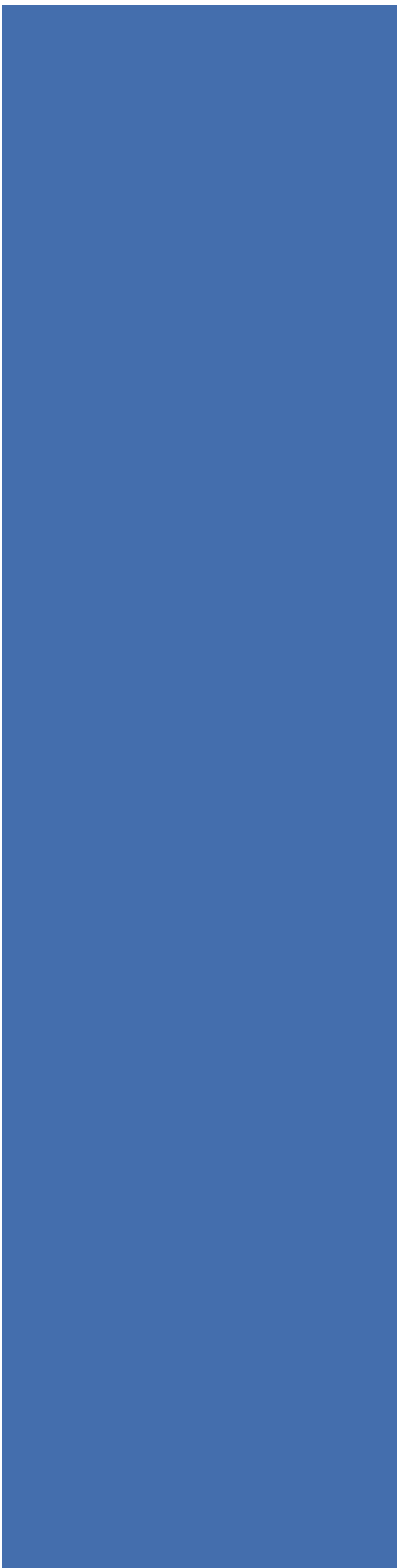
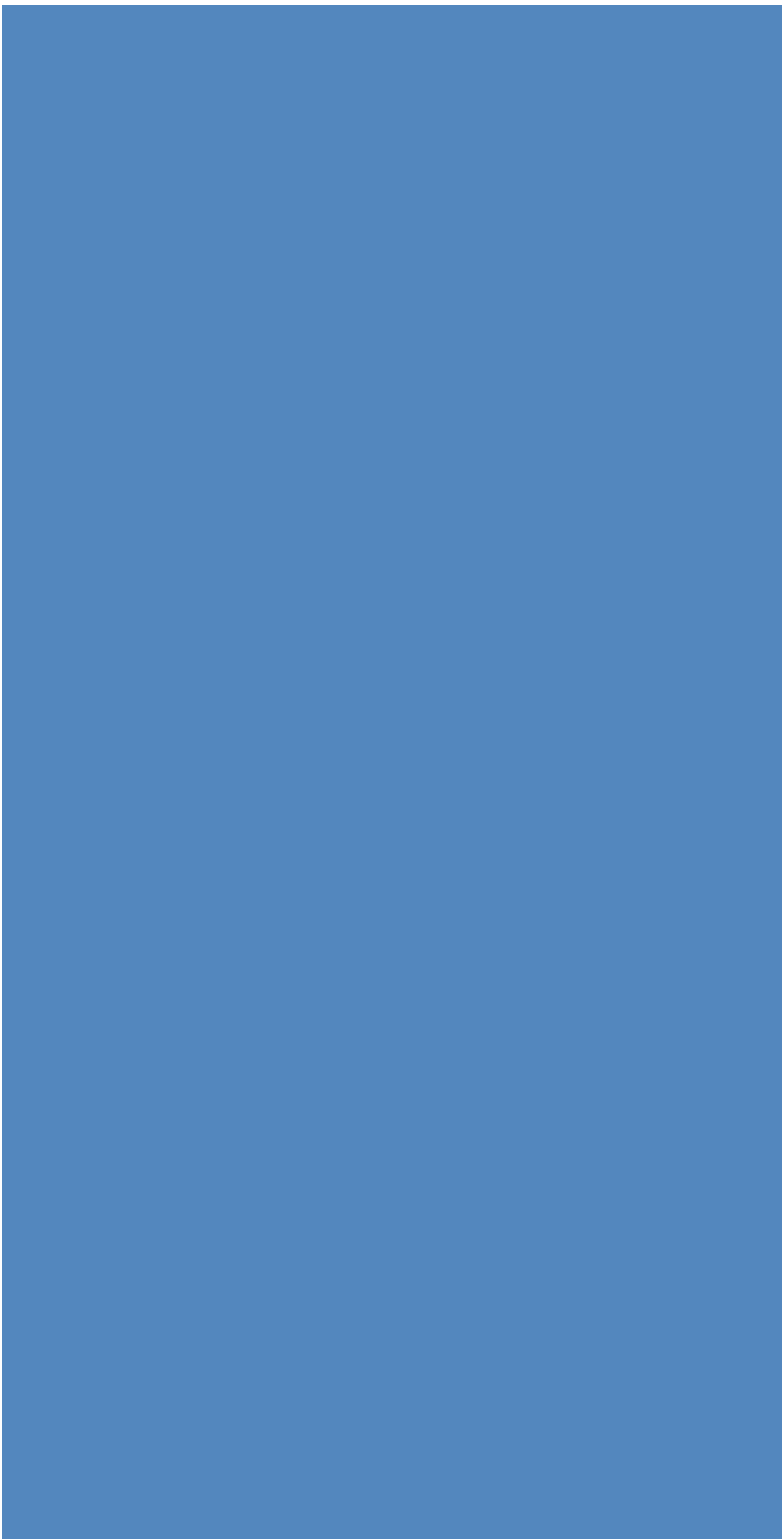
Based on the Chaos Report baseline, these improvements can generate:

- An 18 percent cost savings in required portfolio investment
- Protection of 12 percent of planned portfolio benefits.

On a \$90 Million project portfolio with a planned yield of \$225 Million in benefits over 5 years, better transformation governance could yield \$43 Million in benefits:

- A cost reduction of \$16 Million in required investment
- Protection of \$27 Million of portfolio benefits otherwise at risk.

This yield of \$43 Million in benefits is more than enough to cost justify the implementation and operation of a strengthened innovation management program supported by enterprise architecture and project portfolio management practices.



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