White Paper

# Project-based Funding in an Agile World

**How CIOs can deliver more value by bridging the gap between project-based funding models and product-centric development methodologies.**

## Introduction

Speed, efficiency, and innovation are fundamental in today's competitive marketplace. Successful organizations respond by shaping business processes and infusing attitudes that foster a culture of creativity, empowerment, and agility across all functional areas.

Nowhere is this more evident than in IT. As digitization continues to flourish, application development—once a distant consideration for many senior executives—is now at the forefront of business operations and inextricably linked with an organization's ability to produce new products and customer experiences and to achieve competitive advantage.

As a result, application development methodologies have changed to support the needs of business. Over the last twenty years, the traditional project-based waterfall method with emphasis on discrete, linear phases has steadily given way to the more iterative, product- centric approach of Agile. Today, eighty-five percent of organizations either have adopted or plan to adopt a product-centric application delivery model.[1]

Full Agile adoption at the organization level is difficult to reach, but many are moving closer. In 2018, organizations used a product-centric model for forty percent of their work.[2] And the volume is expected to grow to eighty percent by 2022.[3]

> "The concept of business and IT alignment is not new, but today, it's more important than ever. Executives need to ensure they are directing their resources and funding appropriately and managing the costs necessary to deliver value."

Margo Visitacion,
VP and Principal Analyst,
Forrester

While many organizations are embracing Agile development methods in greater measure, their approach to funding remains nearly unchanged. Project-based budgeting and planning processes, a remnant of waterfall and long used by Corporate Finance to allocate funding to application development efforts, still reign in most organizations. This works against the premise of Agile delivery and inhibits deploying Agile at scale.

But overhauling an organization's financial funding and delivery model to fully support Agile and Lean development principles is a challenge. Can a CIO enable DevOps teams to fully benefit from Agile delivery methods and still ensure executives have the information they need to make funding decisions?

**40%**

**of large enterprise IT organizations will complete implementation of product-centric approaches this year.[4]**

**This white paper looks at one way CIOs can improve software delivery in a hybrid environment of projects and products: by bridging the gap between project-based funding, strategic investment planning, and Agile work execution.**

## The funding challenge

Agile work execution is iterative and dynamic, with emphasis on short, two-week increments within a continuous development process. The short intervals allow for more frequent feedback on planned work. In turn, developers and product managers are able to complete work faster, to deliver value sooner, and if business needs dictate, to shift priorities and resources.

Most developers savor the Agile approach. The working style makes them feel more in-sync with customer needs and better able to cater to those needs freed from the constraints of project-based delivery models. This often leads to increased morale among development teams because it gives developers more autonomy and reduces time spent doing re-planning work.

But these benefits cannot fully be achieved in a project-funding environment. In a project-based delivery model, teams invest heavily up front to create granular estimates on work execution for the entirety of the project lifecycle. Unfortunately, teams cannot foresee far into the future, and estimates are often rooted in false assumptions. Funding, however, is still tied to those estimates and milestones, so when business priorities change, there is zero flexibility to adjust.

## Origin of the problem

For most organizations, funding projects is a standard practice. Business leaders and Corporate Finance have operated this way for a long time. Hence, they are comfortable with scrutinizing business cases and project estimates, weighing risks and rewards, and making decisions. They recognize the hard work put in by their development teams to create estimates around project milestones—and the effort emboldens confidence in the projections among the executive team which often fuels the decision to approve funding.

The shift to Agile development processes, while not new, has taken on new importance in recent years. With new business models and increased focus on customer experiences, the transition to Agile has become a key milestone in the "shift to digital" trend seen in IT across the industry.

But project-based funding processes are well-entrenched and preferred by many CFOs who aren't comfortable with the dynamic, autonomous nature of Agile. Therefore, many organizations struggle to achieve agility while operating under the rigid budgeting, planning, and funding processes of the past.[5]

The result is a blending of methodologies and processes. Many organizations partially deploy Agile delivery methods—maybe one team or two—while still maintaining traditional project-based practices associated with waterfall. These organizations may be developing under Agile practices, but they are still funding projects associated with those Agile teams. While this may appear fine on the surface and provide a perceived level of predictability that the scope of work fits into a project timeframe, it negates some strengths of Agile.

## Agile maturity

Agile adoption occurs in phases. Organizations typically start small and then expand as internal acceptance of Agile grows and process maturity increases.

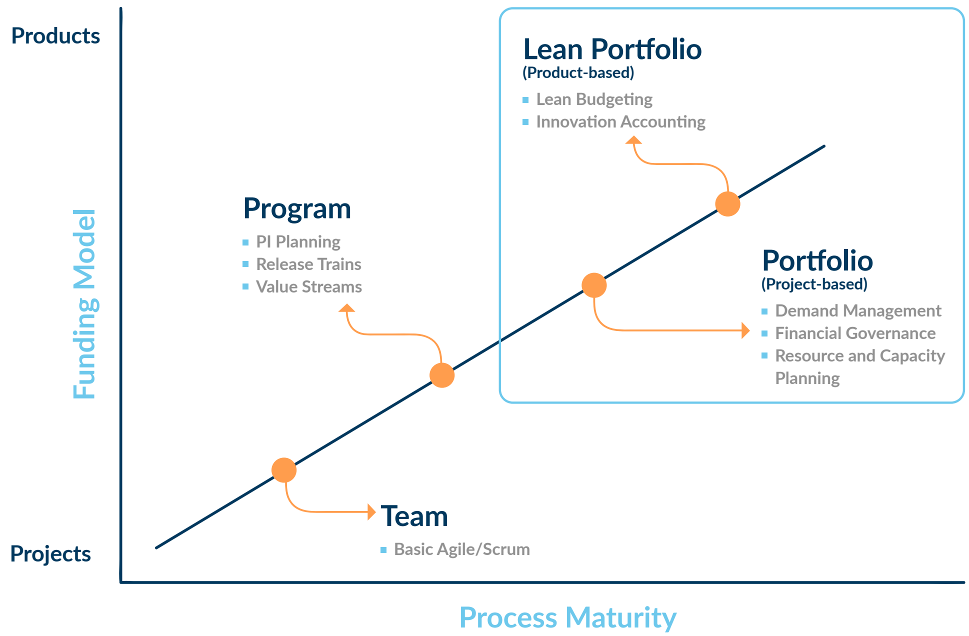


**Figure 1:** Agile adoption phases

At the basic team level, not much changes from the project world. A team may execute Agile practices, but the resources are contained within the team and allocated to project work.

Going beyond the basic level, however, fundamentally changes the way people are managed and work gets done. At the program level, resources are split into functional teams. Teams are then organized into release trains to perform work. An Agile Release Train (ART) is a long-lived, cross-functional team with all of the capabilities needed to define, implement, test, deploy, release, and operate solutions in a value stream.[6] Value streams are organization-defined constructs that are aligned with business strategy to deliver a continuous flow of value.[7]

For most organizations, the goal is to deploy Agile at scale, maturing their processes to enable portfolio and lean portfolio delivery. Agile at the portfolio level means that all the teams working on products within a portfolio have adopted Agile practices, and all work is executed via Agile delivery. Resources are organized into ARTs, and ARTs work on products aligned with value streams.

But for organizations still using a project-based funding model, there is a problem. Agile introduces terms and organizational constructs foreign to the project world. As a result, the financial and capacity estimations common to project-based methods and used to acquire and allocate funding conflict with the flexibility of Agile delivery practices.

## Project-based funding negatively affects Agile delivery

One problem with project-based funding is time tracking. Project plans are based on tasks estimated in hours. Developers log time against tasks, and project managers monitor progress against the plan and the budget.

Agile delivery is different. Instead of hours, developers use story points to estimate work effort. Story points are built from multiple factors that go into executing work—the amount of work to be done, the complexity of it, the risks, and others—and numerically represent the overall effort it takes to implement a product. The benefit of using story points is developers do not waste time logging hours against tasks and instead focus on delivering the planned work for the time-boxed period.

For organizations still funding projects but developing under Agile, time tracking is still required. If not done by the developer, it is performed by the product manager or project manager. This is typically done by filling out a time estimation sheet to portray time tracking against the project, which is inefficient and inconsistent with true Agile practices.

Another problem is resource and capacity planning. One significant benefit of Agile is the ability to ensure resources are always working on high-value work streams, although those work streams—and the products that comprise them—may change throughout the period as business needs dictate. But unless resource plans are tied to funded initiatives, there is no easy way to understand the financial impact of de-scoping projects and shifting resources to other efforts.

**Closing the gap between project-based funding practices and Agile delivery is not simple. To do it successfully, there needs to be a link between business initiatives, products, resource capacity, and financial investments.**

## Project Portfolio Management (PPM): focused on project-based practices

Most medium-sized and large organizations use PPM software to manage projects. PPM systems help project leaders track projects and programs, manage products, allocate resources, and oversee budgets. The software includes resource planning modules that enable team leaders to manage resource capacity across projects in a portfolio. PPM tools work well in environments where traditional, project-based software delivery methods are used.

But PPM systems do not support the working style of Agile teams or their processes. Consequently, most organizations supplement their PPM system with software designed for Agile work management.

## Homegrown tools and processes

With PPM systems geared towards traditional project-centric methods, organizations are left with a problem. There is no way to satisfy both the needs of the development teams (Agile resources capacity planning and work execution) and the senior executives (investment planning and value stream execution), and no visibility into the value delivered to the organization or the financial impact of re-allocating resources.

This results in a variety of approaches to bridge the gap. Some organizations use complex Excel spreadsheets. Others try to retrofit existing tools by “fitting” Agile practices into PPM tools. Neither approach works well and often leads to a patchwork of tools that require manual processes to make them work—these systems are used to track time, to track progress of investments, projects and products, and to perform resource capacity planning. But stop-gap measures only go so far. They lack the financial transparency needed to track the value of work. And they create inefficiencies that negate potential gains of adopting Agile.

**By 2023, 80% of organizations will have an enterprise PMO focused on integrating digital products and programs.**

Whether developing iterative SaaS solutions for external customers or building applications to support internal business needs, Agile is helping organizations achieve business goals more efficiently and with higher velocity.

Lean principles power efficient organizations. But making the transition from project-based methods takes time and effort. Implementing processes that require an overhaul of financial funding and delivery models is difficult even for mature organizations. There are ways to be more efficient, however, even in a hybrid environment of both projects and products. As a CIO, what are some things you can do that will help your teams?

## 1 Standardize processes and organize functionally.

As your organization evolves to a product-driven model, dissolve silos and organize teams into cross-functional groups of resources that can be self-sufficient and sustainable throughout the development process. Standardize on key processes around scope definition, business case creation, metrics tracking, product vision, and tooling. And create a cadence to report out these standardized metrics to your teams.

## 2 Take a data-driven approach to democratizing planning processes.

Use data to substantiate all decisions made throughout your organization, not gut feelings and anecdotes. Make informed investment decisions based off the data you source from systems throughout your landscape, and bring in all inputs you can to inform the investment process. Marry key labor data with your investment plans. Build out resource capacity across your functional teams based off skill and velocity. Let this capacity along with other financial plans inform your knowledge around what it takes to start executing against an investment.

## 3 Push for autonomy and empower your product and project managers.

Project or product managers should feel they have the ability to change and influence the product they own. This shouldn't just stop at a feeling. They should be able to own this and bear responsibility for the outcomes delivered. Autonomous development does not end at the product or project manager. Everyone should have a seat at the table and be able to lend their opinions based on objective data points.

## 4 Drive accountability throughout the organization.

Autonomy is necessary to optimize Agile delivery. But with autonomy you also must have accountability. Implement regular review cycles or retrospectives—ideally at the end of every two-week period—to review progress and to provide feedback. This will result in better governance across Agile teams and ensure consistent progress toward your development goals.

## 5 Evaluate tooling and data.

Many organizations have competing tools in their ecosystem. Review the ones you have in your environment and eliminate redundancy wherever possible. Then, standardize on the selected tools, develop processes around them if they do not already exist, and understand the inputs and outputs of these systems so you can better leverage the data that is captured within them.

## 6 Implement Objectives and Key Results (OKRs)

Objectives and Key Results (OKRs) is a measurement framework organizations use to set strategies and hold teams accountable. Business and development leaders create commonly agreed-on-outcomes and KPIs to measure business and operational value. Establishing time-boxed performance periods keeps the dialog active, allows the team to pivot when necessary and keeps everyone on the same page.

## 7 Adopt value streams to fund new capabilities

Identifying full potential value and cost of investments throughout the customer lifecycle is crucial for any business. Adopting value streams as a funding mechanism allows organizations to tactically determine required work or to identify the potential value of a customer and dependencies that inhibit velocity.

## Case Study

**The problem**

Chevron needed a holistic integrated Agile solution to manage cloud migration and shift from project-based to product-based development.

**The Outcomes**

They implemented IBM Targetprocess to:

- Align business users, engineers & IT teams with a consistent work intake process and a single source of truth
- Improve traceability and visibility
- Build a network of Lean Agile Change Agents
- Enabled 700 people, 60 different Scrum teams on various trains, to deliver value

> **“Agile is one of the reasons TBM has been successful and important to us. Knowing where our money is going—and being able to determine if that is the best place to spend it—has resulted in significant savings.”**

Executive Vice President and CTO,
Large International Food Distributor

## Get Started

Apptio, an IBM company, is the leading technology spend and value management software provider. Apptio's AI-powered data insights empower leaders to make smarter financial and operational decisions across Information Technology (IT), multi-cloud FinOps, and digital product development. Apptio's mission is to deliver business value with every technology investment and team. Powered by Apptio's cloud platform, Apptio's SaaS applications translate technology spend into clear business outcomes and financial ROI. As a pioneer and category leader in Technology Business Management (TBM), FinOps, and Agile Portfolio Management, Apptio works with thousands of customers, partners, and community members worldwide.

To learn more about IBM Targetprocess, Start Your Free Trial

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