STATE OF THE INDUSTRY REPORT 2023

PROJECT TO PRODUCT

BENCHMARKING THE OPERATING MODEL SHIFT FOR DIGITAL INNOVATION





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In Project to Product: How to Thrive and Survive in the Age of Software with the Flow Framework, I outlined the "turning point," which marks the shift of digital innovation from the hands of a few tech giants and unicorns to the many enterprise organizations powering the world economy. As I reflect on the five years since I wrote those pages, the state of digital transformations as a whole is not yet where I had hoped it would be, given that the practices, platforms, and tools are already in place. As William Gibson stated, "the future is already here, it's just not very evenly distributed."

The majority of enterprises have come to realize they need to make the shift from project to product. However, few have achieved the level of transformation needed to match digital natives, who continue to expand their market share even during the most tumultuous economic times.

As our findings in this report uncover, a project to product initiative requires sustained effort across all levels of an organization and needs to be accompanied by top-down sponsorship from the executive team. Without this commitment, the consequences of slow delivery and technical debt are seen in very public profit losses and system-wide malfunctions.

In boardrooms across the globe, executives are being asked to prioritize IT investments that ensure their organizations will transform and emerge from the current downturn stronger. The product-based operating model holds the key to increased efficiency, better customer outcomes, and profitable growth. And while there are no shortcuts, there is a roadmap of best practices that accelerates the transition. This report aims to help organizations shorten the time it takes to transition from a legacy project model into a mature and sustainable product operating model. It highlights the work that remains to be done by many of the organizations surveyed, the efforts that increase the likelihood of success, and the pitfalls to avoid.

Combining insights from survey responses with bootson-the-ground data from over 3,600 value streams, the 2023 Project to Product State of the Industry Report allows leaders to benchmark their organization's progress against industry peers and high performers.

I hope you use this guidance to assess where your organization finds itself on this journey and make the next years of progress deliver 10x more than the previous five. I am thrilled to see more boards and executives holding their leadership accountable for completing the shift as well as making flow the number one initiative for 2023!



Mik Kersten



This report aims to help organizations shorten the time it takes to transition from a legacy project model into a mature and sustainable product operating model.

INTRODUCTION

In a 2018 survey conducted by Gartner¹, 85% of respondents said they had either adopted or had plans to adopt a product-centric model, motivated by a desire to improve speed to market and agility and to support the move to digital business.

In that same year, Planview's Chief Technology Officer, Dr. Mik Kersten, published his seminal book, *Project* to *Product: How to Thrive and Survive in the Age of Software with the Flow Framework*, to help business and technology organizations create greater value together and win in the marketplace.

The inaugural 2023 Project to Product State of the Industry Report benchmarks the industry's progress in replacing old project-centric management frameworks and infrastructure with a new product operating model.

The report finds that after five years, despite their stated intentions, most organizations are still in the early stages of this shift and have yet to realize the ROI from their efforts. In fact, a recent McKinsey survey² indicates that organizations capture less than one-third of the value that respondents expected to see from their digital transformations and initiatives.

While the digital natives that pioneered the new paradigm are achieving success, traditional enterprises are lagging behind, being dragged down by their project-oriented roots that impact budgeting processes, prioritization, metrics, and the definitions of success.

To help executive leaders complete the shift from project to product, this report examines the factors that contribute to success, as well as those that hinder it. We provide tangible examples of systems data patterns that are worth emulating and those to avoid based on insights derived from 3,600+ product value streams.

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After five years, despite their stated intentions, most organizations are still in the early stages of the shift from project to product and have yet to realize the ROI from their efforts.



¹ <u>Gartner Newsroom</u> ²<u>McKinsey Survey</u>

SECTION 3:



MOVING FROM PROJECT TO PRODUCT

Organizations that are moving toward a product-oriented model are making change across multiple dimensions. Depending on the speed and success of their progress, they typically find themselves in one of five stages described in this section.

Why do we need a new operating model?

Enterprises aspire to deliver more value for customers as nimble digital natives relentlessly encroach on their market share. However, most traditional businesses find that bottlenecks associated with software delivery prevent them from executing growth strategies.

In the project model that's dominant in traditional organizations, IT is run as a cost center, and initiatives focus on cost reduction and adherence to timelines. Conversely, digital natives operate in a product model where IT is required to deliver tangible business value and profitability.

Seven dimensions of change in the shift from project to product

At its core, the shift from project to product replaces management frameworks from the manufacturing and mass production eras with those that are more suitable for the Age of Software & Digital. The new operating model impacts every aspect of delivery and requires pervasive changes to budgets, team structures, processes, technology, and the definition of success.



A multi-stage process: Five stages of the shift over time

Reaching maturity across each dimension is a gradual process. In fact, this report reveals the journey takes at least five years.

Enterprises are navigating the transition across five stages:

Starting out

The project model is the norm, but organizations intend to change. They establish and measure baselines for the core metrics that will track their journeys.

Experimenting

A single product line or portfolio is piloting the product model and trying to create a repeatable playbook that will support the shift across the entire organization.

Expanding

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A larger segment of products and portfolios is applying the playbook and introducing new solutions to treat the dependencies that exist at this higher level of complexity.

Operationalizing

All external products as well as internally consumed platforms and services are operating under a productbased model. Rapid feedback loops exist across the board.

Approaching maturity

Every product incorporates principles of value, flow, and accountability for business outcomes. Teams have internalized a mindset of continuous improvement, and there is enough momentum to sustain the transformation.

SECTION 4:



WHERE ARE COMPANIES TODAY IN THEIR PROGRESSION FROM PROJECT TO PRODUCT?

The survey finds that organizations' progress drops off significantly after Stage 2—Experimenting and again after Stage 3—Expanding. This report presents findings on how to increase the likelihood of clearing these hurdles.

Where are companies today in their progression?





Only **9%** of respondents have operationalized the shift, leaving **92%** who haven't realized or captured the full value at scale.



46%—the largest cohort of respondents — are in the Experimenting stage. Changes are localized or in a pilot stage.

63% are Starting Out or Experimenting, a high concentration in the early, exploratory stages of the shift.

29% are in the Expanding stage, taking learnings and applying the product model more broadly.

The most prevalent industries represented in the survey responses are Financial Services, Healthcare, Technology, and Energy/Utilities.

Technology companies are seeing the most significant progress, with the highest number of respondents in Stage 4—Operationalizing and Stage 5—Approaching Maturity. These are established companies, 20+ years old, that were subject to the project model in earlier phases. Their inherently crossfunctional, integrated, and customercentric approach may be easing their progress.

Healthcare and Financial Services – These highly regulated industries have a high percentage of responses in Stage 2—Experimenting and Stage 3— Expanding but are progressing at a lower rate than Technology, Energy, and Others, possibly because of their complex regulatory environment and associated weighty processes.

Energy and utility companies are the earliest in the transition, with the most responses in Stage 1—Starting Out.

What do executives think?

Executive and senior leadership responses to the survey were consistently more critical of their organization's progress than other respondents, indicating a clear-eyed evaluation of the prevailing state and the understanding that small pockets of achievement do not equate to overall progress.



levels."

The likelihood of reaching Stage 4—

Operationalizing in Energy, Healthcare, and

"Flow Metrics and business outcomes are incorporated in operational reviews at all

Financial Services industries increases when

In the Energy and Financial Services industries, the

likelihood of operationalizing the model increases

when "value is well-defined and serves as a focal

point for every team member."

SECTION 5:



A TOOLKIT FOR THE PROJECT TO PRODUCT SHIFT: VALUE STREAM MANAGEMENT AND FLOW METRICS

Transformation at scale demands the right tools. A defined roadmap, cross-functional collaboration, and a data-driven approach can accelerate the journey.

A toolkit for the project to product shift: Value stream management and flow metrics

Navigating the shift from project to product requires not only a mindset shift but also concrete frameworks that support the transition throughout every stage.

The first building block is value stream management (VSM), which Forrester defines as "a combination of people, process, and technology that maps, optimizes, visualizes, measures, and governs business value flow through heterogeneous enterprise software delivery pipelines."¹ VSM organizes the processes of software delivery into product-focused value streams, each of which delivers tangible business value to the customer.

The second critical component is a set of outcome-focused metrics that measure these product value streams' current performance as well as incremental improvements that occur during the shift to a product model. For software delivery, Flow Metrics serve this purpose. They are compiled from disparate tools across product value streams and quantify the rate of business value delivery from the perspective of a product's internal or external customers.

According to the Value Stream Management Consortium's State of VSM Report 2022, organizations employ different strategies for obtaining data about value stream flow: 62.5% of respondents aggregate or manually collect the data from several sources and tools. 20% of organizations already use a dedicated VSM tool for this practice, and an additional 15.7% of respondents are considering adopting a tool.



Project to

Flow Metrics

¹Forrester.com

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SECTION 6:



WHY ARE SOME ORGANIZATIONS PROGRESSING SUCCESSFULLY?

What are the most important changes an organization must make to successfully operationalize the shift to a product operating model?

Analysis of the survey results identified five attributes that increase the likelihood of success:

- #1. Continuously funded build-and-run teams
- #2. Independent release processes fueled by internal, self-service capabilities
- #3. Ability to incorporate customer feedback within weeks
- #4. Flow metrics and business outcomes incorporated into operational reviews
- #5. Mature product management function that governs product vision, roadmap, and viability

These factors were determined using regression analysis* to check for interdependence and correlation of responses with the stage organizations have reached in the shift.

In this section, we'll examine each attribute alongside illustrative insights from aggregated value stream systems data.

*The Firth Logistic Regression method was used, which is well-tested for data sets of this size.

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#1. Build-and-Run Teams

The survey demonstrates that the most influential attribute for companies successfully navigating the shift is **team organization and resourcing**.

Survey Question: How are teams organized and resourced?

Project 37% 31% 20%Product

All IT assets are funded annually by projects and "run" budgets

Internal platforms and shared services are operationally funded; externalfacing products are delivered by crossfunctional teams

Most of our portfolio, including some internal platforms, is delivered by crossfunctional build-and-run teams; funding is annual or semi-annual

The entire portfolio is organized in continuously funded cross-functional build-and-run teams

When the entire portfolio is organized in continuously funded build-and-run teams, budget allocation is constant but is reviewed and adjusted annually, semiannually, or—optimally—quarterly. These adjustments are informed by desired business outcomes.

Cross-functional teams alone are not enough. Most internal and external products should be staffed by cross-functional, *build-and-run teams* that own the product throughout its lifecycle.



Despite its importance, only **12%** of respondents report using a continuous, flexible funding model.



Survey Data

#1. Build-and-Run Teams

CIOs and CFOs are unaware of the waste created by top-down annual project-based budgeting cycles, without feedback and the flexibility to reallocate. Yet, Flow Metrics from thousands of value streams reveal the extent to which a project funding model encourages (or even mandates) creating large batches of demand that far outweigh delivery teams' capacity to execute.

Business targets are set based on unrealistic expectations, setting the stage for missed commitments, unrealized revenue targets, and technologist burnout.

Business leaders believe IT teams can deliver **10X** more than their actual capacity



Only **8%** of what's planned by Agile teams gets delivered



#2. Dependency Management

The survey indicates that the second most important factor in achieving a product-oriented model is the approach to managing dependencies.

Survey Question: How are dependencies managed?



Dependencies are difficult to tackle in software development because "value streams are not linear manufacturing processes. Their structure is much more similar to that of an airline network than a manufacturing line." ¹

When all internally consumed capabilities are available as self-service, organizations are more likely to operationalize a product model. While most respondents have moved away from the SLA-driven execution paths of a project model, the majority still grapple with dependencies.



87% of respondents are impacted by technical, process, and skill dependencies or are delayed by handoffs and coordination with shared services.

5% of respondents have transitioned to a full self-service model for internally consumed capabilities. Many organizations struggle to create organizational and architectural designs that support fast flow. Systems data illustrates that while Agile development teams complete small units of work quickly, bottlenecks frequently crop up during the last mile of the release process, most notably in the junctions where work from multiple contributors converges.

30-40% of end-to-end delivery time is spent on software testing and release activities



Completed code commonly idles for **3+ months** before it's released





#3. Rapid Customer Feedback Loops

The survey demonstrates that the ability to revise planning quickly based on customer feedback increases the likelihood of operationalizing the shift.

Survey Question: How rapidly can customer feedback revise planning?



Long release cycles with highly governed annual or semi-annual release windows are the hallmark of project-oriented organizations—an attribute of 16% of respondents. Operationalizing a product model is much more likely when all products have an independent path to production and can incorporate feedback within weeks.





Over half—**54%**—indicate that some or all products have an independent path to production along with a faster feedback cycle, with **10%** incorporating customer feedback within weeks.



#3. Rapid Customer Feedback Loops

Despite the technical ability to release on-demand, aggregated systems data from value streams reveals multiple impediments that prevent most organizations from achieving a rapid feedback cycle and quickly incorporating customer feedback.

Untenable workloads

55% of value streams have twice as much work as they can handle



Constant reprioritization

When new work arrives, in-flight work is put on hold to the point of diminishing returns, resulting in **40%** wasted efforts



#4. Correlating Flow and Business Outcomes

What gets measured gets managed. And according to the survey results, what gets measured also determines the likelihood of achieving the later stages of maturity.

Survey Question: How are delivery teams measured?



The goal of the product model is to repair the disconnect between business and IT. Accordingly, direct mapping between delivery team metrics and business outcomes is necessary to support decision-making and inform strategy.

Incorporating Flow Metrics and business outcomes into regular operational reviews is proven to increase the likelihood of operationalizing the shift, yet survey responses show this dimension of change poses a significant challenge.



51% of respondents still measure IT's success with quality and cost metrics, which are considered too one-dimensional for a product model.

Despite their popularity, Agile, DORA and Engineering metrics on their own do not increase the likelihood of operationalizing the shift.



Since Flow Metrics were only introduced in 2018 in Project to Product, it is encouraging that 20% of respondents report using these metrics.

#4. Correlating Flow and Business Outcomes

Partnership with business counterparts is essential to clarifying and quantifying targeted business results.

Less than **10%** of value streams regularly review Flow Metrics in the context of business results.

This gap between strategy and execution is emblematic of the gulf that separates business from IT in organizations that are in the early stages of their transition to a product model.



#5. A Mature Product Management Function

A mature product management function is critical, where product managers act as the long-term custodians of product vision, roadmap, and viability.

Survey Question: How are backlogs managed and prioritized?





Programs, projects, and Gantt charts drive the backlog

A primary business stakeholder dictates desired features, and portfolio managers commit teams to the work

Product managers create execution plans to deliver desired capabilities on an annual planning cycle

Product managers are the long-term custodians of product vision, roadmap and viability

In project-oriented management, the project plan drives priorities, and the long-term implications of design choices are rarely taken into consideration. But the survey demonstrates that a mature product management function is imperative – one with skilled product managers who maintain a healthy balance in their software portfolio by tying roadmap, team capacity, trade-offs, and prioritization to high-level business imperatives.



A project mentality prevails in nearly **one quarter** of organizations with decisions driven by project plans and time-bound schedules.

Most respondents—**419**6—report that a primary business stakeholder still dictates desired features and development priorities.

36% of respondents testify to a stronger role for product managers, a positive sign.

Product-oriented models have value streams that reflect a healthy mix of Feature, Defect, Risk, and Debt work. Yet, system data for most product value streams demonstrate under-investment in the foundational—yet often invisible—work that sustains products for the long term.

80% of value streams do not proactively allocate capacity to technical debt



90% of value streams do not proactively allocate capacity to security and compliance work



SECTION 7:



WHAT'S STOPPING COMPANIES FROM ADVANCING?

It's equally important to understand the attributes that significantly impair an organization's ability to expand and operationalize the shift. Survey analysis reveals two such attributes:

- #1. A weak product management discipline
- #2. A lack of feedback mechanisms with customers

These factors were determined using regression analysis* to check for interdependence and correlation of responses with the stage organizations have reached in the shift.

In this section, we'll examine each attribute alongside illustrative insights from aggregated value stream systems data.

*The Firth Logistic Regression method was used, which is well-tested for data sets of this size.

#1. A Weak Product Management Discipline

The most significant factor that impedes progress toward a productoperating model is backlog management and prioritization.

Survey Question: How are backlogs managed and prioritized?

Project 23% 41% Product

Programs, projects, and Gantt charts drive the backlog

A primary business stakeholder dictates desired features, and portfolio managers commit teams to the work.

Product managers create execution plans to deliver desired capabilities on an annual planning cycle

Product managers are the long-term custodians of product vision, roadmap and viability

In a weak product management discipline, a primary business stakeholder dictates desired features, and portfolio managers commit teams to the work. Product managers are liaisons between business and engineering teams and are not empowered to lead long-term product vision and roadmap. As a result, technical debt is neglected in favor of features, leading to "software that is prohibitively difficult and expensive to maintain."

> **6.4%** of respondents report that project management philosophies still dominate their backlog management and prioritization decisions.

21% of respondents report product managers who execute annual plans, but have limited ability to drive long-term product strategy.

#1. A Weak Product Management Discipline

In systems data, strong product management models exhibit value streams with a healthy mix of work types. The variance in the type of work completed increases in direct proportion to the strength of the product manager's role.

Weaker product management models focus primarily on features and defects and do not invest capacity in technical debt, security, and compliance work.

More mature product models exhibit value streams where product managers have intentionally directed capacity toward revenue protection work which ensures quality and capacity for feature delivery over the entire product life cycle.



#2. Lack of Customer-Centricity

A lack of customer-centricity undermines an organization's ability to expand the shift to a product model beyond initial experimentation.

Survey Question: How strong is customer-centricity?



Most individuals would find it difficult to identify their customers

Our external-facing applications can clearly identify their customers but we have no programmatic feedback mechanisms in place

Most of our portfolio can clearly identify their customers; some mechanisms for customer feedback are in place but they are not universal

Product managers meet regularly with internal customers and have programmatic mechanisms to gather and respond to feedback

According to Deloitte¹, client-centric companies are 60% more profitable compared to companies not focused on the customer. When staff struggle to identify their customers or can only do so for externalfacing products, they also have no programmatic mechanisms to gather and respond to feedback. Since most of the technology portfolio serves internal customers, delaying the treatment of these critical IT assets as products inhibits progress overall.

52% of respondents do not apply the principles of customer-centricity across all product lines, internal and external.



Only **3.1%** of respondents have universal, programmatic mechanisms for collecting customer feedback regularly and consistently, including from internal customers.

¹ Deloitte



#2. Lack of Customer Centricity

Customer-centricity is essential to delivering products that fulfill client needs and create delight. Organizations that lack a deep attachment with their customers cannot attach business value to the daily continuous improvement work that is intended to deliver more value, faster.

80% of value streams do not track continuous improvement work against customer-centric outcomes



90% of software delivery value streams measure outputs instead of impact as key results



Survey Demographics and Methodology

Survey data collected from April–December 2022. Respondents self-assessed their organization's progress across the seven dimensions described above and were assigned a score between 0 and 3 for each response. Based on their total scores, respondents were benchmarked into one of the five stages. Anonymized systems data was aggregated from over 3,600 value streams from 34 organizations.



(Note: The survey includes multiple responses from a single organization. The respondent's different perspectives often result in different responses and thus stages). N = 326 individuals from 253 unique companies.

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CONCLUSION

In the five years since the publication of *Project to Product*, the urgency to realize value from digital transformation efforts has only increased. According to <u>McKinsey</u>, to meet future revenue expectations, companies across all industries must dramatically increase their efforts to build new businesses. In fact, companies with more than \$1 billion in annual revenues will need to build seven new businesses per year over the next five years.

These new businesses will rely on new technology products, ranging from data and analytics platforms to connected products to software-as-a-service. Operationalizing a product model is critical to shortening timeto-market and enabling the rapid feedback loops necessary to incubate and launch new capabilities at such a pace. This report demonstrates that shifting from project to product is possible with a steady and determined effort to reach the end state in seven core dimensions. Most organizations have already begun this process: 29% are just one stage away from operationalizing the new model, and 46% are currently building the playbook to expand their implementation.

With appropriate prioritization, a concrete roadmap, and a data-driven approach, organizations can accelerate the remainder of their journey and achieve faster delivery that supports the business's transformation to digital services. Planview is offering a personalized assessment and roadmap assistance for operationalizing the product model.

Get started at planview.info/assess-my-org

ABOUT PLANVIEW



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