Six Principles of Strategic Portfolio Management

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During the past 20 years companies have greatly improved processes and systems for managing the "operational" aspects of project/portfolio management (PPM)—budgeting, project management, resource planning, StageGate and phase gate processes.

Strategic portfolio management, while practiced for many years by leading companies in pharmaceuticals, oil and gas and aerospace, is only now emerging as the next step in the maturity of PPM. What is the difference and why does it matter?

Early adopters of strategic portfolio management characterized the difference as "doing the right projects" vs. "doing the projects right." They recognized that large amounts of money were wasted on project/product failures (80% or more of new products fail according to numerous studies); projects that continued to soak up valuable resources when they should have been killed long ago and simply, poor initial investment decisions.

Many companies are finding that while operational processes and tools have improved results, they fall short when addressing decisions around selecting the best projects in which to invest and how best to allocate capital and other resources to optimize the value of project and project portfolios.

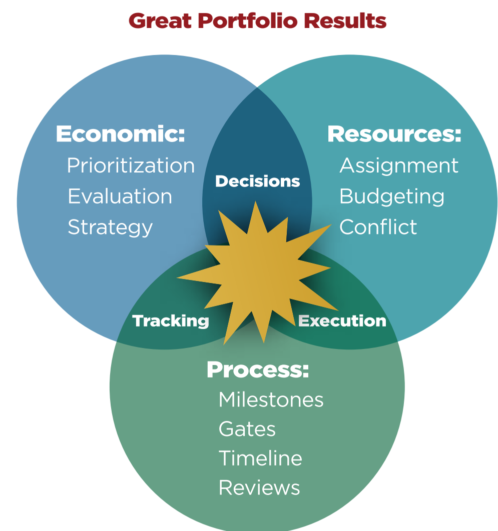
To optimize decisions that drive top-line and bottom-line value, companies need to consider three distinct areas: economic, resources and process. The Venn diagram shows how these areas relate to value creation.

Economic Decisions in this area underpin strategy and relate to **what**: selecting the most promising projects in which to invest, allocating resources, and developing a balanced risk-vs.-reward portfolio.

Resources Decisions in this area are fundamental to "making it happen" and revolve around **who**: achieving StageGate or phase gate goals, allocating and managing human resources, budgeting and day-to-day project management.

Process Processes and decision-support software in this area support **how**: the project/portfolio management process from ideation and concepts to commercial launch.

As noted, each of these areas involves different decisions, decision makers, processes and tools. The challenge is to bring everything together to avoid sub-optimization of any one area to the detriment of the whole.



In this white paper we will focus on the Economic area, which sets the foundation for creating exceptional value through strategic portfolio management. Through research and consulting experience with dozens of companies in a wide variety of industries, we have identified six principles that are basic to value creation:

1. **Aligned Decision Forum:** Include the right people at the right levels at the right time.
2. **Value Creation Focus:** Focus decisions on creating value at each development stage.
3. **Credible, Comparable Evaluations:** Employ clear, transparent evaluation frameworks.
4. **Embrace Uncertainty and Dynamics:** Explicitly identify the impact of uncertainty on key decision variables and track changes throughout development.
5. **Inclusive, Collaborative Process:** Involve key stakeholders from ideation to commercialization.
6. **Clear Communication and Learning:** Assess, track, inform and continuously improve.

Aligned Decision Forum

The credibility of a company, both internally and externally, rests largely in the abilities of its decision makers to make sound, strategic decisions that will benefit everyone from the corner office to the mail room and stretching out to its clients, vendors and customers. Do decision makers embody the values and mission of the company?

A company's C-suite executives' ability to make decisions that impact its profitability, efficiency, and long-term goals determines their success in their roles as decision makers. Decision making for companies can be an arduous task unless a process is in place that organizes the data that is gathered and structure is put in place to control how the data is used to arrive at informed decisions. An aligned decision forum provides an environment that drives decision-making at all levels of business and is key to providing a foundation for business planning and analysis.

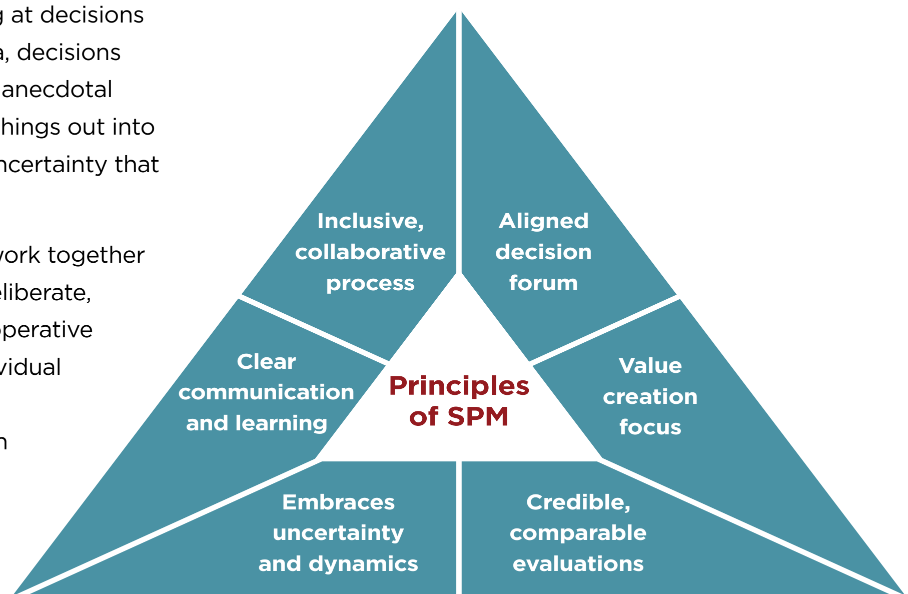
Without the structure of an effective forum by which to make joint portfolio decisions, players can find themselves in conflict with other players over competing ideas, or be driven by the desire to advance their own agendas. Multiple players that may not be the right people for the project at hand—from different backgrounds—may bring conflicting processes to the table, making it unclear how to proceed, confusing matters, creating an environment where decision makers are talking past each other. Rather than arriving at decisions that are well thought out or based on hard data, decisions are made based on "gut" feelings, or worse, on anecdotal information. An aligned decision forum brings things out into the open, including acknowledgement of the uncertainty that surrounds planning for the future.

When decision processes are aligned, players work together under one umbrella process to analyze data, deliberate, resolve conflicts and take actions based on cooperative discussion, rather than being distracted by individual agendas or competition. It also brings the right people to the table for effective communication and decision making.

Players have the opportunity to objectively analyze the top-down aspirations of their company within the existing economy and market climate. They can then leverage those aspirations against the bottom-up reality of the company's product, its competitiveness and financial status. Within an aligned decision environment players are able to strategize and prioritize based on data, available information and informed judgment. Quality decisions are made using meaningful and relevant information that is summarized at the appropriate level of detail for the decision at hand.

A portfolio manager is challenged to set funding priorities, allocate resources among segments, balance innovation and incremental projects, meet corporate financial goals and assure a steady stream of successful new products. By working through the process the group can address the important questions about where the company wants to go, what are the goals, what is needed to accomplish them, what kind of resources, funding, technology are needed, what already exists in the company's portfolio and what should be kept, modified or shut down?

An aligned decision environment provides the setting and structure to bring people and information together, resulting in better, faster and cheaper decisions that benefit everyone.



Value Creation Focus

Value creation focus is a strategy by which all stakeholders involved in decision making answer a simple question: how does everything we do contribute to creating economic value for my organization?

In an ordinary setting that lacks focus, peoples' objectives tend to be driven by personal agendas, functional perspectives and individual biases. There is no structure—metrics and analytics are not clearly connected to value creation, or they are manipulated to advance personal agendas. Without a focus on value creation, information is more likely to be selected to support personal agendas or positions, resulting in the application of irrelevant information to arrive at decisions.

By focusing on value as a prime metric, when managing the strategic portfolio, we ensure that a forum is created to allow individuals and groups to think clearly about economic and strategic issues, and creatively about how to improve the value of their portfolio. In this scenario, metrics and analytics inform analysts, giving them an understanding of economic outcomes that drive universally beneficial choices. By focusing on value, all information needed to inform value creation is put on the table, both positive and negative, and is ultimately incorporated into neutral evaluations.

Let's look at a case study involving too many projects and not enough resources—what would you do in this situation?

A high-tech packaging company that had built on tremendous innovation in materials and design over the decades was facing serious challenges. They were looking at a marked increase in global competition and an erosion of the advantage the company had in the market. Its products were increasingly undifferentiated, their margins were dramatically eroding, and R&D and NPD had failed to produce anything really new and exciting in a while.

Their portfolio was choked with R&D and NPD proposals. The CEO was demanding more innovation, but cost reduction and incremental projects were inhibiting innovation, which created a lot of churn and debate. Projects started to struggle for resources, with over 70 projects on the table with only the resources to support about 15 of them.

They tried traditional evaluation approaches. The CFO created a business case in financial terms based on gathered relevant data, modeling it after a successful capital investment process. They used the project management approach, assigning clear project leadership responsibility, forming teams, creating plans with clear milestones and deliverables. They pursued the best plans and held people accountable.

They looked at their resource allocation, addressing the core issue that certain resources were oversubscribed. They created resource managers to assign key resources based on guidelines and situation specifics.

They created scoring rules by defining essential criteria, such as strategic fit, size of opportunity, technical difficulty and investment, and then they assigned a score for each project on a scale of 1-5 based on each dimension, taking the weighted average to get to the figure of merit.

None of these approaches worked.

Here are some quotes from the executives on how traditional approaches failed their business.

"Weighted scoring rules simply elevated politics to a new level of sophistication."

"Business cases strongly favored incremental projects."

"Project management methods created more work on projects we would cancel."

"Resource allocation efforts abdicated the companies' most important investment decisions to relatively low-level managers."

Then they tried value-based evaluation and it worked.

"When we got clear about value, many project leaders voluntarily cancelled their own projects; they realized they could better direct their efforts to higher-value projects."

"We reduced our portfolio from 70 to 20 projects, improving the return by more than 100%."

Focusing players on identifying the relatively few factors that drive value is fundamental to developing value-based, believable business cases for the strategic management of projects and project portfolios.

Credible, Comparable Evaluations

When it comes to portfolio management it can be easy—in many cases, too easy—to explore the theory side of the equation without looking at how companies in the real world are living the principles of value creation. Let's take a look at how one of the largest petroleum companies benefited from implementing them.

The managers of R&D/technology portfolios were pressured by management to accelerate the deployment of technology to business opportunities. The business needs for technology were not being met in a timely fashion while at the same time corporate growth bottom line objectives were demanding more for less money. Projects were being kept alive too long, and there was an inconsistency in how projects were evaluated. Senior managers were having difficulty comparing projects of different types, and the company was experiencing significant limitations of a subjective "thumbs up/thumbs down" approach to prioritization of projects in the development portfolio.

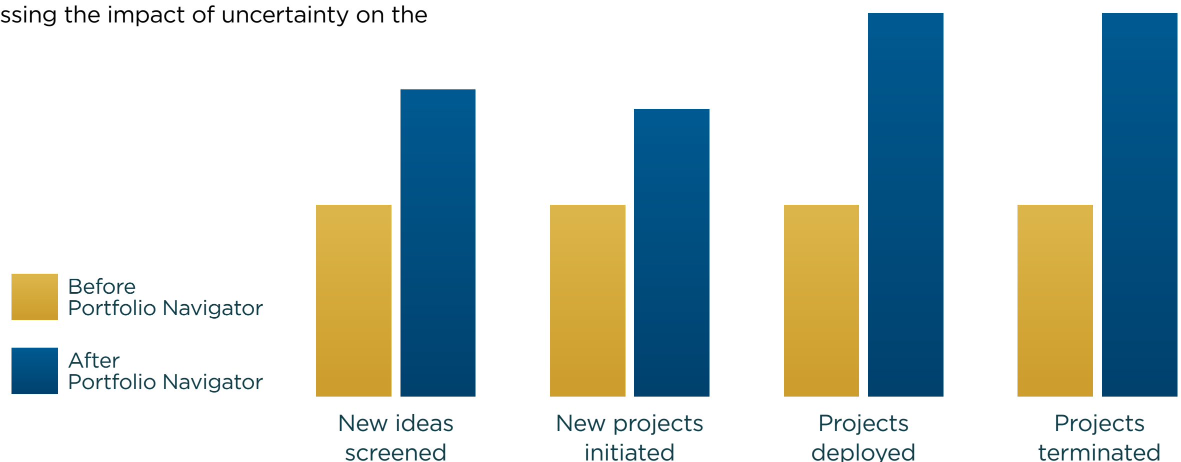
The existing portfolio management process was primarily a roll-up of business cases to justify projects, which as noted above led to inconsistent project evaluation, making it quite difficult to objectively compare projects within the portfolio. The process was competitive and adversarial, supported by little quality data.

A senior manager of a major technology portfolio decided to meet the challenges by implementing SmartOrg's value-based portfolio-management process, supported by Portfolio Navigator® software. The new process made project evaluations transparent to all team members, clearly identifying key value drivers and addressing the impact of uncertainty on the NPV of each project.

- A peer and expert review process emphasized transparency, creditability and comparability.
- Uncertainty tracking included baseline assessments of the ranges of uncertainty around each factor in the model. Updates were based on evidence and learning as projects moved through development.
- This transparent process helped address "garbage in, garbage out", which had historically been one of most challenging issues.

In one year following implementation of value-based management, the portfolio manager reported a 60% increase in new ideas screened, a 50% improvement in new projects initiated, and a 100% increase in projects deployed and projects terminated. By stopping one project a year earlier, funding and resources were made available to accelerate development of more promising projects, adding $10 million in value to the portfolio—30% of the annual budget.

An additional benefit: credible, comparable evaluations allow every member of the team to view the importance of his/her contribution to creating value and to understand and accept decisions that may reject their pet projects when other projects can be shown to have higher value potential for the organization.



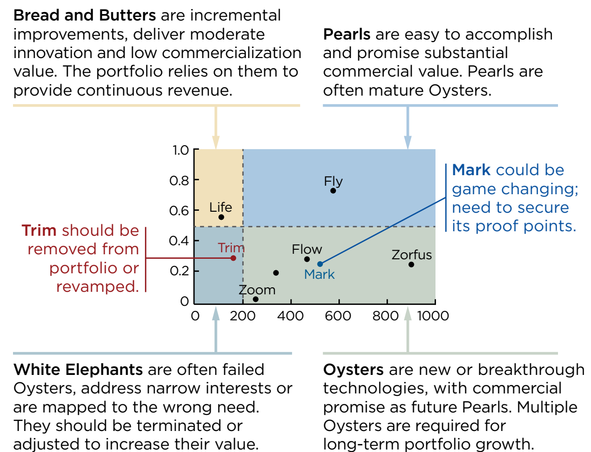
Embracing Uncertainty and Dynamics

In the business world, we strive to make sound decisions. We want to be confident that we have done all of our research and that, by the time we are launching a new product, we have addressed every aspect of it to ensure its success. During the product development cycle, things change that make updating and tracking our assessments a vital part of the process. It requires that we address the uncertainties that arise. Whether we are experiencing fluctuations in our market, there is instability in the economy, or consumer trends are changing before our product reaches them, we must carefully examine all of the uncertainties. By embracing uncertainty rather than fighting against it, we put ourselves in a better position to achieve successful outcomes. This is what we mean when we refer to dynamics.

Here's a case study:

A Fortune 100 company acquired several smaller companies that each had good products in the market, but there was an apparent lack of new concepts in the R&D pipeline. The company established a new R&D lab with the goal of researching their way to become a world-class firm. Since the lab was new and the technical areas they were researching were cutting edge, they picked easy targets to fast-track their way onto the map. But was that sustainable? Was the lab on track? Would that method generate the hits they needed to fill the pipeline?

A quantitative evaluation of the lab's procedures revealed they had a lab full of "white elephants" and "bread-and-butter products," but they lacked sufficient "oysters" to create blockbuster products ("pearls"). They developed a strategy to identify additional valuable targets, redirect or kill the white elephants and balance their portfolio to improve the odds of winning.



Example of a chart showing projects based on risk vs value

When we allow deterministic thinking and aversion to risk to drive the quest for certainty, assumptions tend to be made to defend a position and the ability to confirm information is suppressed. This leads to assumptions comingling discussions about knowledge, commitments and aspirations into point estimates.

However, when we embrace uncertainty and dynamics, and address the uncertainties explicitly over time, we create an opportunity for robust thinking about upsides, downsides and options. There is more of a willingness to take prudent, calculated risks. Discussions around uncertain factors are separated from discussions about commitments and aspirations. Information is represented in terms of ranges and probabilities, with supporting rationales for the assessments.

Even the best-researched decision making can result in failure. No matter how you try to control uncertainty, things do not always work out. If you are intolerant to uncertainty, you may create unnecessary stress and anxiety for yourself and your colleagues. If, instead, you recognize that uncertainty is a normal condition, factor it into your analyses and adapt as changes arise, you will find that you are in a better position to defend your decision.

Inclusive, Collaborative Process

While many companies do a reasonably decent job of involving project managers and department heads in making decisions that will affect their teams, the process of portfolio management for some companies has focused on the needs of the C-suite executives and management first. Decisions that affect the teams working on projects may be made behind closed doors with little thought put into how those decisions would impact those teams. Access to the data that is used to make those decisions is limited to a privileged few, and project leaders are then handed these decisions with no voice in the process and given the daunting task of disseminating them to their teams, whether anyone likes it or not. By handling portfolio management in this way, stakeholders, project managers—and indeed all participants—are left feeling disconnected and disenfranchised from the process. The work is often viewed as large-scale drudgery and overall morale is negatively impacted.

In the strategic portfolio management model, key stakeholders participate in the process and get a voice. Those people who are most invested in the decisions and motivated to seek the best possible results find the process useful in guiding their work. And the rationale of the final decision that was made is stored (rather than ignored) and becomes a repository of knowledge for supporting ongoing decisions throughout development and commercialization. It's the difference between facts and knowledge, and it has a profound effect on every aspect of a company's operations.

Strategic portfolio management process, and the software that supports it, creates a forum for all stakeholders to participate and for the decision-making process and strategy to be communicated openly. All participants have a voice and are able to contribute to the final decision, which promotes individual investment in the outcome. An inclusive process, understood by all, eliminates paralysis through analysis and reliance on spreadsheets that need to be reworked and that are not generally understood by anyone but the analyst who constructed them.

In essence, you want everyone who will be impacted by the outcome of your decision-making process to benefit from it. The more involvement that stakeholders have in the process, the more invested they will be in implementing decisions and the more likely they will be to engage in ensuring success.

To recap, the six principles of strategic portfolio management start with an aligned decision forum that focuses on value creation. Evaluations are made using credible, comparable data and embracing uncertainties and dynamics. The process is inclusive and collaborative and results in the sixth and final principle, clear communication and learning.

Clear Communications and Learning

When organizations lack a value-based process to support strategic portfolio management decisions, they risk treating project/portfolio evaluation as an analytic exercise rather than as a collective conversation around value creation, supported by analytics. Because there is no inclusive process, they may not involve key stakeholders, resulting in lukewarm support for implementing decisions. Even worse, results may be used to blame, punish, or otherwise hold people accountable for performance when they have had little or no involvement in the decision-making process.

In their best-selling book *The Smart Organization: Creating Value through Strategic R&D*, SmartOrg co-founders David and Jim Matheson address the topic of "open information flow," which directly relates to clear communication and learning.

In a "smart company," they assert that "Virtually all information is available to whomever wants it. Information is used in surprising ways to create value. The flow of information crosses functional boundaries. In such an organization, people feel safe in sharing what they know and feel obliged to contribute to information-sharing systems. They are excited about teaching and learning."

The decision-making process in smart organizations is dynamic, following the principles of agile development, wherein the information that informs decisions is routinely updated to provide feedback to adjust decisions about further investment and changes in direction based on improved knowledge.

When a strategic portfolio management process is in place, results are used specifically to improve the project and develop a level playing field to support effective portfolio evaluation and management. Uncertainties are tracked and updated based on new evidence, and decisions are updated appropriately. Information is gathered as needed to fill information gaps.

To recap: strategic portfolio management is all about honest and open assessment and communication with a focus on creating the highest possible return on investments in R&D, new products and innovation.

Here is a recap of the Six Principles of Strategic Portfolio Management:

1. An Aligned Decision Forum drives quality decision-making at all levels
2. Value Creation Focus means that everyone in the organization understands how their decisions and actions create value for the organization and its customers
3. Credible, Comparable Evaluations allow participants to assess and compare value on an objective, level playing field
4. Embracing Uncertainty and Dynamics means that uncertainty is addressed, communicated and managed
5. An Inclusive, Collaborative Process aligns everyone around the strategic goals of the organization
6. Clear Communication and Learning allow information to be shared freely, assessments to be routinely updated and project direction modified as knowledge increases

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