



Get a handle on it

**Managing your R&D portfolio
is all about priorities.**

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New Product Ideas, Product Enhancements, Sales Opportunities, Customer Requests, Capacity Utilization, Cost Savings, New Technologies and the list goes on. Different types of businesses, Consumer Branded Companies, Ingredient and Equipment Suppliers, and Food Service Companies, all face similar issues. Most R&D groups have a wealth of opportunities, requests, ideas and projects to work on. How this abundance of work is managed and translated into the R&D project portfolio separates truly effective R&D organizations from their overworked, under-appreciated colleagues. An R&D organization must diligently manage a portfolio of projects/programs based on appropriateness and contribution to the business tempered by organizational capacity.

PORTFOLIO BALANCE

Different business types – consumer-branded companies, ingredient and equipment suppliers, and food service companies – frequently face similar workload challenges: new product ideas, product enhancements, sales opportunities, customer requests, capacity utilization, cost savings, new technologies and so on.

Food and beverage R&D is no different. Yet, the manner in which various groups manage this abundance of work and prioritize the project portfolio separates truly effective staffs from their overworked, under-appreciated colleagues.

Establishing an effective portfolio of R&D projects is similar to establishing an investment portfolio. First one must identify an overall strategy. Are you looking to promote growth? Preserve finances?

Are there immediate short-term needs? Are you willing to make an investment for long-term growth? What is a comfortable risk profile? Are you willing to take on projects with a higher degree of risk but with a greater potential payoff?

Portfolio balance refers to the right mix of short-, medium- and long-term programs, as well as the appropriate blend of R&D projects and programs across project type, timeframe, risk profile and project stage. This mix should directly link to and derive from the business strategy.

Balance across Strategic Elements

The process of managing the R&D portfolio provides a valuable checkpoint to ensure that projects are consistent with strategic intent. Successful companies create growth and profitability through capitalization on a range of strategic elements applied in concert. These typically include new technologies/knowledge-building, new products, line extensions, product enhancements/news, and cost and productivity improvements. The R&D portfolio should be structured according to the stated needs of the business, the compatibility of projects and programs with strategic elements, and R&D's ability to manage the portfolio effectively and ensure successful outcomes.

Balance by Project Stage

Many companies utilize a stage-gate process to manage their projects, which generally progress through the following stages:



The number of projects successfully navigating each of these stages varies. While there is no hard and fast rule concerning the number and percentage of projects that should reside in each project stage,

establishing a balance increases the probability of delivering a continual stream of new products and product news. Conversely, a disproportionately large or small number of projects in any stage will result in episodic product introductions and create organizational overloads or delays.

To deliver a steady flow of new products, product news and cost reductions, the portfolio should reflect the probability that success rates will be less than 100 percent. For every successful project, there may be one or two that don't come to fruition. Recognizing the odds for success helps to ensure continuity of business programs in the event that any given project, despite the team's best efforts, fails to meet expectations.

The business' size, strategy and specific needs will dictate the practicality and importance of the portfolio balance.

PRIORITIZATION

A business must identify a means to prioritize projects and allocate resources to assure adequate focus and attention needed to achieve business success. This is not an easy task. On the people side, credibility is key surrounding the range of resource options being explored and the reliability of R&D capacity estimates. On the project side, it is difficult to reconcile the fact that not every good project will be worked on. Making these tough choices determines the value of the R&D Project Portfolio. There is a great business value in prioritization, as it improves the probability of delivering projects with the greatest returns. An excessive number of projects will dilute R&D efforts. When too many projects are undertaken, one of two scenarios is likely to arise: Progress on the projects slows or time constraints result in a superficial approach to the project, limiting opportunity for learning and increasing the risk for surprise or failure. It's better to have a short list of projects that can be successfully executed than a long one characterized by lengthy timelines and a hazy focus.

Companies that prioritize poorly are often characterized as fire fighters, meaning there is so much work that the crisis of the day dictates where efforts are spent. Rather than developing projects and implementing them with a systematic value-based approach, urgency and frenzy take over. Planning and critical thinking are sacrificed for activity; staffs are never ahead of the curve. Groups that operate in this manner may survive in the short term, but at

some point disaster arises from this frenetic approach and its resulting lack of finished products.

Three ways to prioritize

So, exactly how does one begin to prioritize?

• *Scenario One: Draw a line in the sand*

1. Value the project. When valuing the project, it is important to consider the present value of the project's dollar contribution in terms of: a) top-line sales growth, b) preventing sales erosion (e.g. competitive threat), c) profitability improvements, and d) cost avoidance over the life of the project. Technology and other enabling projects should be credited for the proportion of the potential value they create through their capabilities.

2. Discount the project value based on best estimates of probability for success. In general, new product projects carry a lower probability of success than cost-reduction projects.

3. Rank order the projects by value.

4. Evaluate and adjust the balance across strategic elements.

5. Evaluate and adjust the balance in phases of development.

6. Assess the resource requirements of each project and baseline activity. These may include technical support/problem-solving, consumer/customer complaint resolution, documentation/specification maintenance, legal and regulatory requirements, and human resource/management programs.

7. Assess organizational capacity. Draw the line where capacity runs out. This results in choosing the projects that will progress and, more importantly, those that won't.

• *Scenario Two: Calling in the reserves*

In this scenario, steps 1 through 6 are the same. But rather than drawing the line on projects, more resources are added to accommodate a greater list of them. Business leaders in this scenario see a direct link between R&D investment and sales driven by high levels of R&D performance and credibility. To maximize business performance in these companies, it's important to find ways to work on greater numbers of projects rather than drawing the line and working on fewer of them. This scenario could include hiring additional staff, or creatively adding part-time or outside resources.

A Tale of Two Companies

Chapter VII

We continue with "A Tale of Two Companies," which contrasts the portfolio management practices at fictional, extreme-opposite food and beverage companies, Schiffer-Branes Foods and Nirvana Food Processing.

Schiffer-Branes Foods

Dr. Ernest Maladroit believes his R&D team does a great job of portfolio management. They use financial tools to value and rank projects, and project timesheet tracking allows them to estimate project resource requirements.

S-B's project portfolio contains a number of longer-term projects, despite the company's rapidly fading fortunes in the marketplace. Seeking to avoid criticism of project selection, Maladroit is not inclined to make the tough decisions required to kill existing projects or reject new ones.

With more projects added to the project list, a serious overload has overtaken the organization. A recent snack product introduction was followed by an expensive and embarrassing recall when a misunderstanding of the snack's shelf life resulted in stale-tasting product on store shelves.

The best Schiffer-Branes R&D talent is leaving. Water cooler talk on the subject sarcastically relates that rather than having a handle on its portfolio, Schiffer-Branes R&D needs to install wheels on its steamer trunk of projects.

Nirvana Food Processing:


While not as "precise" as the S-B approach, Nirvana R&D uses a combination of data and expert judgment to assess the value of projects and forecast the resource requirements of new projects. The company understands the amount of R&D activity dedicated to baseline support programs.

Maxwell Albright firmly believes that the R&D project portfolio should mirror the business strategy in direction, focus and timing. His project portfolio is balanced across elements of the strategic plan and designed for the delivery of a steady stream of new products and profits.

He also feels that moving expeditiously through a short list of effective projects is preferable to plodding through a long list of "cats and dogs." With regard to projects, he has "drowned a few puppies" over the years to ensure that truly deserving projects are successful. By assuring the project list is manageable, he has been able to build R&D knowledge while delivering quality work and speed to market.

• Scenario Three: Creating a better project list

Scenario One is about fewer projects; Scenario Two is about more resources. Scenario Three calls for creating a higher-value list of projects or projects with a higher probability of success. This is a direct outcome of better stage-gate process management. Throughout the new product process, notably (though not exclusively) at the completion of each gate, decisions are made relative to project viability and timing. Decision options include: move forward, place on hold, replan or kill the project. Many R&D organizations work to ensure that as many projects as possible move forward. Truly effective R&D organizations work to ensure that only the most deserving projects move forward, thereby guaranteeing

that scarce resources are used in the most beneficial manner possible. 

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