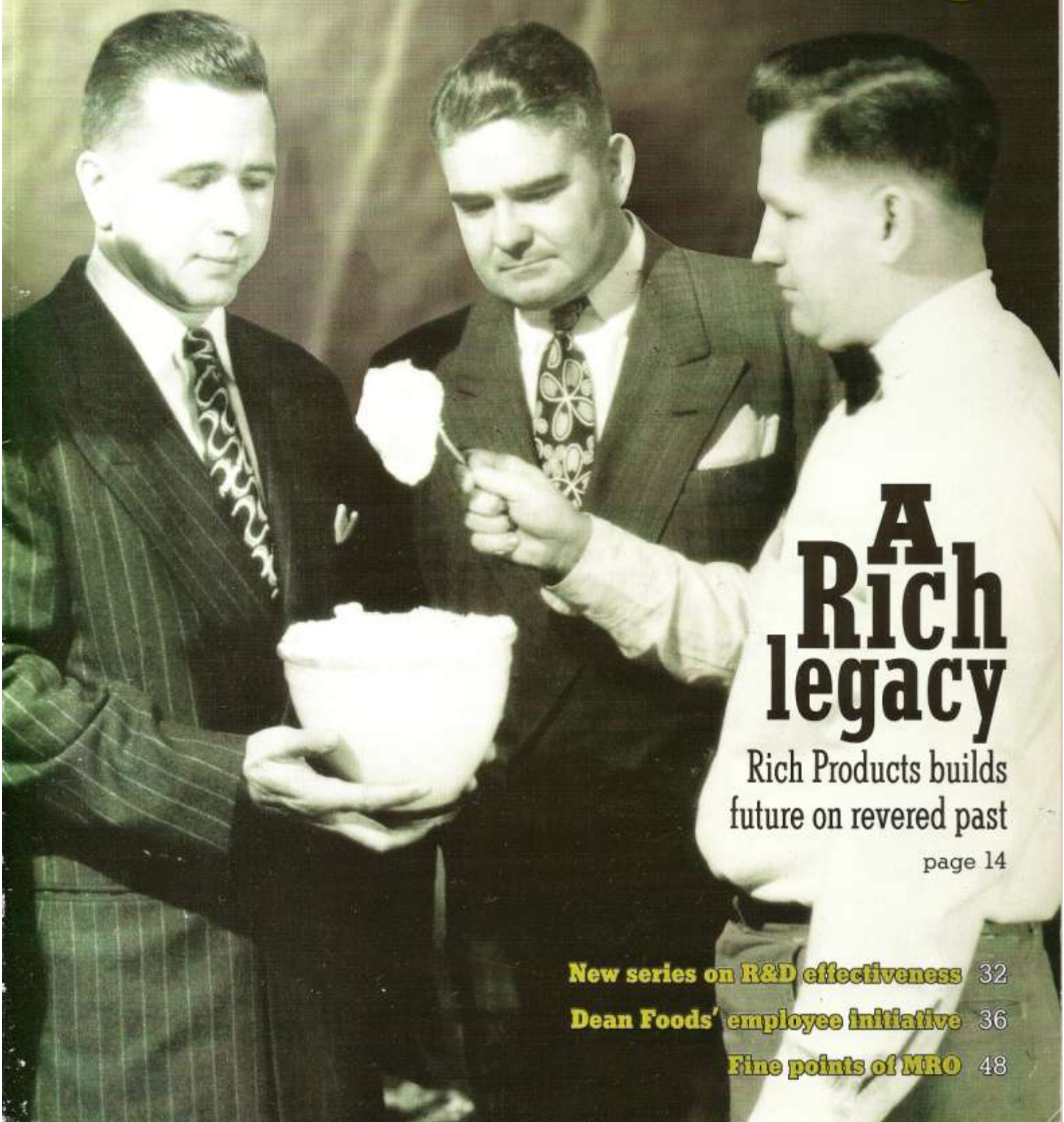


Food Processing



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R&D as a strategic asset to the company—or not



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As consultants specializing in improving R&D effectiveness, we have observed a diverse set of individuals and organizations across many food and beverage categories. The majority of our consulting engagements arise from organizations feeling the need to improve R&D effectiveness.

No surprise here. What surprised us, however, was that most often the first contact was made by non-R&D managers, e.g. general management, marketing, sales or operations leaders questioning the deliverables provided by their R&D groups.

In many of these cases, the R&D leaders were unaware of dissatisfaction among their internal clients, or at least the magnitude/urgency of the situation. Other times, R&D leaders were aware of the performance gap, but due to the complexity of the issues involved, didn't know where to start to remedy the situation.

But let's be fair to R&D. In a large number of instances, R&D's performance was dramatically affected by larger organizational issues. These included lack of a defined business strategy, unclear roles and responsibilities and a culture that relegated R&D to service group status. While R&D provides support to any organization it serves, it should provide support as a doctor or lawyer does to his or her clients, rather than as a ditch digger or day laborer does to his or hers.

While business leaders and clients of R&D may question the return on the investment in R&D, most of these managers are not trained in R&D, nor have they experi-

Editor's note: This is the first in a series of articles that will run over the course of the next year highlighting key issues in food and beverage R&D performance. In this series with Quality R&D Partners, we will investigate issues, their solutions and best practices in many critical areas of R&D. This will enable your organization to release the untapped potential in R&D by:

- Bridging the gaps that exist between R&D and other parts of an organization in knowledge, planning and performance.
- Developing skills and competencies required for R&D groups to compete in today's business environment.

One goal of this series is to lead organizations to critically examine their business practices related to R&D, with the goal of improving R&D effectiveness and consequently, the return on their investment in R&D.

enced truly effective R&D. As such, they may have difficulty setting organizational expectations for R&D or diagnosing and correcting performance issues. Stated simply, they don't always know what they want, but they know they aren't getting it

What is R&D effectiveness?

As the preceding discussion implies, there is a major element of organizational satisfaction inherent in R&D effectiveness. Organizational satisfaction is a major consequence of sustained R&D effectiveness, but satisfaction alone does not mean you have truly achieved this exalted state. Your organization may have low expectations for the R&D group. Even with a high degree of satisfaction, improvements are possible to your R&D practices.

R&D effectiveness must be measured as a balance of contributions to business success and technical achievements. The appropriate balance will be unique to each company. In years past, a common error was to overemphasize technical achievements at the expense of business results—technology for technology's sake. In many ways, the pendulum has now swung too far the other way

in order to deliver speed to market with slashed R&D budgets—quick and dirty. There is business value and sustainable competitive advantage to be gained through innovation, manufacturing reliability, freedom from crises, etc., by achieving the proper balance.

As a result, R&D effectiveness grows from a set of key technical and business activities done well. Later in this series of articles, we will more completely define R&D effectiveness and describe best practices for organizations to benchmark against and implement to improve the effectiveness of their organization's R&D in many key areas.

Let's attempt, however, to whet your appetite by saying that the activities that must be done well include:

- Achieving strategic alignment of R&D plans with business goals.
- Organizing and staffing in support of the R&D/business strategy.
- Developing people in key areas of technology, business understanding and influence/leadership.
- Creating and supporting a culture of open exchange and prudent risk-taking.
- Managing a balanced portfolio of projects/programs based on appropriateness and contribution to the business, e.g. technology, innovation, cost/quality improvement, etc.
- Sustaining effective means of progress measurement and internal and external communication of same.
- Effectively commercializing new products, technologies, etc.
- Maintaining product knowledge and product/manufacturing support throughout the life cycles of all products.

Consistently doing the above well will drive measurable contributions to business success, balance short- and long-term company needs and create high return on the investment in R&D. It therefore results in and defines R&D effectiveness.

A tale of two companies

To further shed light on the subject of R&D effectiveness, let's paint a picture of two hypothetical food companies.

At their onset these companies had similar sales, product lines and R&D investment as a percent of sales. Over time, however, they developed very different R&D practices, with widely differing outcomes.

We'll call the first company Schiffer-Branes Foods, formed by the merger of Schiffer Snacks and Branès Beverage Co. R&D at S-B was regarded as a service group, meeting the demands of the "superior" groups such as sales, marketing and operations. In other words, they were the organization's ditch diggers. They were the last to be consulted or informed about strategies and plans. R&D had been trained to do what they were told and ask few questions. In order to survive, R&D's primary modus operandi had been to lie low and stay out of trouble.

Despite their best efforts to avoid the spotlight, Schiffer-Branes R&D was constantly being blamed, criticized and publicly demeaned. Marketing criticized R&D for developing "underwhelming" products and "blowing" introductory timelines. In order to avoid confrontations, R&D made commitments they knew they could not deliver. The plants held R&D responsible for ongoing yield and quality issues with current products. Let's not even get into new product startups at the plant. Product quality crises were frequent, and huge amounts of time were required for fire fighting.

All this resulted in a demoralized group, reluctant to think strategically, innovate, problem-solve or influence the world around them. Over time, the S-B R&D group continued its downward spiral and was ultimately reduced to a skeleton organization. The remaining staff was responsible for an unmanageable workload, with little help or hope for the future. The R&D head was "retired" early and not replaced, with the remnants of R&D folded into the operations organization.

The company is now floundering in the marketplace, losing sales and market share to its competitors. Profitability has fallen dramatically, and rumors are abounding of the imminent sale of the company.

Now let's look at a second company, Nirvana Food Processing. At Nirvana, R&D is a leadership group, an appreciated and respected member of the business team, hold-

In years past, a common error was to overemphasize technical achievements at the expense of business results.



Insights into R&D Effectiveness

ing co-equal importance with other team members, such as finance, sales and marketing, operations, etc. They are consistent contributors to company strategies and plans, influencing key business decisions.

Leveraging their ability to simultaneously process technical and business information, R&D has demonstrated an uncanny ability to come up with ideas and solutions to problems before most were aware they existed. While Nirvana R&D could not guarantee there would never be glitches, they consistently identified and communicated issues and risks early on, and put contingency plans in place to maximize probability of success. This resulted in extremely high credibility for their points of view. At the plants, R&D members were warmly received for their contributions. R&D always seemed to understand the plant issues and offer ideas and solutions to make things run better. R&D never left new product startups until they were capable of operating at the specifications, efficiencies and costs expected. Additionally, they continued to maintain expertise on existing products and work in partnership with the plant to improve cost and quality. As a result, product quality crises were rare but handled effectively when they arose through systematic problem-solving.

R&D has been recognized and rewarded for its outstanding contributions to business success. As a result, the Nirvana R&D group continues to be highly motivated to accept new challenges and go beyond expectations for the benefit of the business, developing new capabilities and driving competitive advantage.

R&D effectiveness must be measured as a balance of contributions to business success and technical achievements.

The R&D group at Nirvana has delivered the new products and operational efficiencies that have grown sales and profitability and funded the company's efforts to grow into new categories. As a result, Nirvana is growing much more rapidly than its competition. As the business has grown and prospered, the investment in R&D as a percent of sales has remained stable. However, business growth has meant growth and opportunity for the R&D organization as well. Talented R&D professionals have earned more responsible positions inside and outside R&D.

Critical role and success

When R&D plays a critical role in contributing to the success of a company, it is demonstrating R&D effectiveness, serving as a source of capabilities and opportunities for the company's strategic planning. R&D consistently provides key insights and ideas leading to business-driven innovation. It is a source of thought leadership to business decisions, technical and non-technical. R&D provides the continuity and knowledge to support product and manufacturing excellence throughout the life cycle of products. The ultimate result is a successful business, a business more than satisfied with its R&D, and an R&D organization confident in its role and proud of its contributions.

In describing Schiffer-Branes and Nirvana, we have purposely created companies at opposite ends of the R&D effectiveness spectrum. While you may recognize some of each company's characteristics in your own organization, most companies—including yours—will fall in-between. If you can truly say your organization sounds like Nirvana, congratulations. You are well along the road to R&D effectiveness, but there is more to discuss. Of course, if your practices closely match those of Schiffer-Branes, look around to see if the HR department is busy in closed-door meetings with the CEO—it may already be too late. However, if there is still time, commit to reading this series and to seeking out the help you need to transform your organization into an effective R&D organization. **FF**

During our years in corporate America, and now as consultants, these are some of the words that we have heard used to describe R&D across a diverse set of organizations. Which of these words are being used to describe your R&D organization? In public? In private? If you are concerned that a few of the words in the right-hand column are creeping into discussions about your situation, then there is much to act upon ahead.

Strategic resource	Service group
Great business partners	Techies
Innovative	Stale
Technical experts	Seat of the pants
Valued contributors	Deadweight
Leaders	Lemmings

Paula Manoski and Scott Gantwerker are the principals of Quality R&D Partners (www.qrdp.com) co-located in Ridgefield, Conn., and Barrington, Ill. They have been involved in the development of products such as Pepsi ONE, Quaker Chewy Granola Bars, Quaker Toasted Oat Squares Ready To Eat cereal, Celeste Microwaveable Pizza and many more. They can be reached at paula@qrdp.com and scott@qrdp.com.