

Who's in R&D? And What Do They Do?

Following a series of acquisitions, the R&D division of PerkinElmer's Life and Analytical Sciences turned to Primavera to bring a global workforce of diverse talent together as a team.

Business Results:

- Accelerated introduction of new products
- Created global, boundary-free workplace
- Standardized best practices within R&D

Project Statistics:

- 50 to 150 projects managed simultaneously at any given time
- 500 employees in 6 operational sites using Primavera



When global technology leader PerkinElmer Inc. introduced its latest offering and analytical science products, the company was delivering a new standard of integrated solutions.

PerkinElmer, the world's leading supplier of tools for screening newborns for metabolic disorders, employs 10,000 people and operates in 125 countries. The Wellesley, Massachusetts-based company, which reports nearly \$1.7 billion in sales last year, helps researchers discover and develop new drugs as well as test air and water quality.

Rapid Growth – And Change

PerkinElmer has experienced dramatic growth in recent years in the U.S. and Europe, as well as in developing countries such as China and India. Last year alone, the company introduced more than 75 new products. In 2003, the company's operating margin jumped 11 percent, and last

year it grew by 12 percent. Shareholders saw an earnings per share increase of 33 percent in 2004 alone.

It has also been a tremendous period of transition for the company. After several years of acquisitions and restructuring, the company retooled the way it does business to better support innovation and integrate its diverse team of scientists and engineers, including the implementation of Web-based metrics and processes to drive accountability at all levels of the company. This year, further expansion will be fueled by a 20 percent increase in R&D spending to more than \$100 million.

PerkinElmer is made up of three business units – Life and Analytical Sciences, Optoelectronics, and Fluid Sciences – but it is its Life and Analytical Sciences unit that is by far the company's largest, generating more than \$1 billion in revenue last year. The division delivers tools and services for drug discovery, genetic screening and environmental and chemical



analysis that include instruments, reagents and other consumables.

Within the unit's R&D division, the changes brought by growth have been unifying and have helped drive products to market faster. They have also laid the foundation for the global delivery of new and complex products such as CellLux, for example, a cellular fluorescence workstation that allows pharmaceutical makers to screen thousands of individual cellular assays at the same time.

CellLux, which was introduced recently to the market, showcases the company's R&D integration. It was brought to market by a transcontinental development team created from recently acquired or consolidated business units – product development took place at sites in three countries.

"Our projects get exposure to more than one place at the same time," says Jeff Killian, director of global R&D operations for the Life and Analytical Sciences Group. "They're not developed in isolation. Our engineering experts in Downers Grove, Illinois are talking to engineers in Seer Green in the United Kingdom, and they're talking to our reagents experts in Montreal. Along the way, they're creating a very cutting-edge tool for drug discovery."

A Series of Acquisitions

Much of PerkinElmer's rapid growth is the result of a series of mergers and acquisitions. The string of purchases began in 1993 when a company called EG&G purchased the Finnish laboratory equipment and supplies company Wallac. Then EG&G changed its name to PerkinElmer.

In 2000, PerkinElmer purchased New England Nuclear (NEN Life Sciences Inc.), a company that specialized in state-of-the-art drug discovery products, services, reagents and technologies for the life sciences industry. It was that acquisition that brought Killian, a molecular biologist, to the organization.

That was followed in 2001 by the acquisition of the \$165 million Packard BioScience Company, which extended PerkinElmer's capabilities in automated liquid handling and sample preparation.

Finally, this combined business unit integrated with another PerkinElmer business unit, Analytical Instruments, in late 2002 to form Life and Analytical Sciences – which also meant consolidating a broad, multi-faceted 450-person R&D team.

Today, the R&D unit is made up of five Centers of Excellence spanning six locations: Boston, Massachusetts; Downers

Grove, Illinois; and Shelton, Connecticut, in the U.S.; as well as Montreal, Canada; Turku, Finland; and Seer Green, U.K.

Each center has its own specialty. For example, Boston is traditionally a biochemical stronghold and Downers Grove is the company's liquid handling site.

Combining Workforces and Cultures

The creation of the new Life and Analytical Sciences unit signaled a time of restructuring and geographic consolidations. The company was focused on cutting general and administrative costs to meet a relatively difficult economic environment and position itself for a stronger market in the future. The goal was to serve an increasingly global market with a complete solution or "soup-to-nuts" capability, and so new attention was placed on R&D.

The R&D team soon realized that its main challenge would be to successfully weave together its diverse workforce, business cultures and project orientations.

"As directors, we were suddenly faced with all these new people and all these new projects they were working on. The first thing we had to do was really identify who worked for us, what skill sets they had and what projects they were working on," says Killian. There were cell biologists, organic chemists, physicists, mechanical engineers, electrical engineers and software engineers, among others, he explains. "So we were trying to get hold of what we had as a global R&D company to see where we needed to go from there."

"While we really valued individual skills and the cultures of each sites, we didn't want to just go with the status quo," Killian explains. "We wanted a standardized organizational structure that was the same at each site, and we wanted to run the same development processes to eliminate redundancy and remove any need to look backward."

"We also wanted to get everyone connected. So if I'm a biochemist in Boston, I would know the biochemist in Turku, Finland. Yet we didn't want to vanilla-ize it so much that people in the individual sites would lose their own identity and culture."

Who's in R&D?

In 2003, to undertake the streamlining of its new R&D team, PerkinElmer turned to Primavera by implementing its resource management solution as part of its broader program to standardize structures throughout the company.

Killian says it was critical to be able to identify where people with needed skills were located in the company so that their expertise could be used where it was needed most. "With Primavera, we created a database where people enter their hours against certain projects on a daily basis. Then we layered a few other applications over the Primavera data warehouse so that we get many cuts of the data and have worldwide views of organizational performance. Now, for example, we can see all the projects that any particular business element is commissioning and who are working on them."

"In the beginning, there may have been two similar projects independently under development in two locations. But with Primavera, we now know what the resources' skill sets are and we can see how to leverage them in partnership. We can say, 'OK, Turku and Boston are starting to work on the same types of projects. Maybe we shouldn't be running two projects. Maybe we should be running one project and combine the resources.'"

Having this global view is giving PerkinElmer a competitive edge. "Now that we see the crossovers, the homologies, we're able to start looking at more customized projects that take two projects and bring them down in one cutting-edge blockbuster project," adds Killian.

The Bottom Line

The Primavera solution is also helping the R&D group keep a tighter rein on the bottom line. With anywhere from 50 to 150 projects underway at any given time, Killian says they can ask, "How many hours did we work for this particular business element? Or how many hours did we work on this type of project – for example, a reagents project portfolio versus a software projects portfolio? We now have the ability to look at our annual operating plan, roll up all the actuals data from Primavera, and then compare the two on a regular basis. I can see, for example, what the fluctuations are on a daily basis and make adjustments as needed."

A Global Workforce

"With Primavera, we are coming to a much more efficient way of managing our resources and our projects portfolio. The more integrated we become, the better we can benefit



from the knowledge management across the company and make good critical decisions for moving forward.

"Today, anyone at any R&D site can be scheduled to work on a project anywhere in the world," says Killian. "All the software experts in Shelton, for instance, know their counterparts at other sites, share their experiences, help each other understand best practices and recognize the best people to contact when it comes to resourcing projects. It accelerates the time to market and also deepens the quality of the kinds of products we are creating."

"Ultimately we're not working in separate companies anymore. We're all one company using standardized project processes. We have a global, boundary-free workforce."

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