

Re-development: Breathes New Life into Old Products

Product redesign doesn't always mean lowering costs or adding features.

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Editor

Companies redesign their products for several major reasons. For one, technology changes, so using new technology to reduce costs keeps products viable and competitive. "Early users also influence redesign work," says Dean Schauer, vice president of engineering endoscopy div. at **Accelgent Inc.**, Wilmington, Mass., (accelgent.com). "Surgeons might find an instrument useful in ways not originally conceived. So with a few modifications, it's made useful for the new purpose. And then there may be levels of reliability or performance that had not been thoroughly evaluated because the instrument gets used more vigorously than anticipated, for example. Then it's necessary to change characteristics to make it more durable," he says.

Sounds simple enough. So why shouldn't companies do redesigns themselves? "Because companies have limited resources, including their number of experts," says Schauer. "Not every company can, for example, design a device that cuts and cauterizes. That takes special knowledge. Even a company with the expertise has a limited budget, so its people work on products with the greatest profit potential. And after a product has been in the market for a while, the company might prefer to focus its resources on cutting-edge ideas."

"What's more, redevelopment or redesign work is best done by a team of outside experts that don't have to overcome biases towards existing products," says Sam Burd, president of **Medical and Biotech Developments**, Oakland, Calif., (ambd.com). A few redesign firms have experience in both engineering and marketing, keys to product rejuvenation.

The good news is that redeveloping a product costs less than its original development. Some contract manufacturers specialize in redesign and product turnaround. Doing so, they say, requires industry experience, technical expertise, and market research.

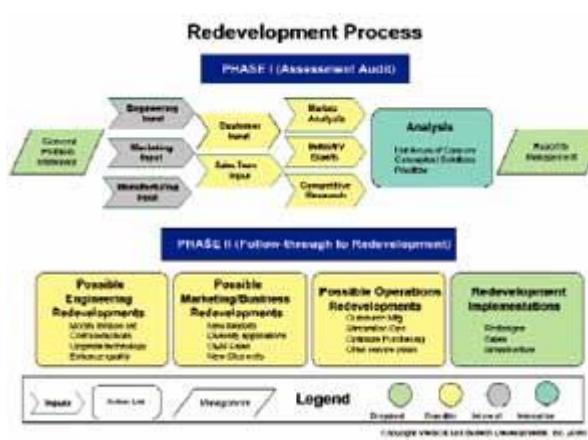
A closer look

"Product redevelopment is a systematic analysis and correction to an existing product's features and market position," says Burd. Successful redevelopment requires examining the basics of the market served by the product as well as a look into markets it could be serving. "For example, it's common during redevelopment to challenge underlying assumptions about certain features and how customers value those features," he says.

Companies most often consider product redevelopment just before discontinuing the product. But in an ideal world, says Burd, redevelopment is continuous. The best time to start is shortly after product release, while key marketing and engineering players are still available.

Of course, redevelopment does not guarantee success. "It's possible that the competition or market differs from what you originally thought," says Burd. "Under the best circumstances, redevelopment leads to a clearer understanding of the best direction for a particular product. A thorough redevelopment effort must look into a range of possibilities and explore them with enough detail to discover opportunities and rule out dead ends," he says.

Cost reduction and product improvement seem obvious goals, but they do not encompass the full scope of possibilities because they focus on existing products and markets. "Sometimes the best redevelopment is not cost reduction but a cost increase to generate more profit. In addition, finding new markets requires employing people familiar with different markets who can see how to apply the product in new ways. New markets are often identified during audits meant to find a best course of action. Audits should be done by people experienced in marketing and technology so potential profits aren't overlooked," he says.



MBD's Burd suggests that a product redevelopment often progresses through a flow chart of these capabilities and events.

The audit

The audit starts by interviewing the design team. This includes key engineers, marketers, sales people, and customers. A second phase usually collects external information from published reports and interviews with industry experts outside the company. A final step gathers competitive information. The team then suggests ways to increase a product's bottom line and discusses alternatives.

"Redevelopment also works with services," says Burd. "Like tangible products, services are designed and marketed to specific customers. Are there new customers from different industries that can use your service? Will slight changes to a service address client needs and increase profits? Service redevelopment follows the same plan used with products," he adds.

Product redevelopment can hinge on how well you see what's on your business' radar screen. "For instance, large demographic changes are easy to plan for, but less publicized changes must be uncovered if a product is to generate the most profits.

New features and new markets

A company making chambers for biological testing wanted to increase its sales volume. The chambers created an oxygen-free environment with sealed-glove access and space for storing reagent bottles and small tools. It was easy to load and remove samples. The company sold the chambers to medical and biological testing firms, but sales were flat.

During the chamber's redevelopment, a team from Medical and **Biotech Developments**, lead by Sam Burd also looked for new markets. Experts from the semiconductor industry pointed out a niche market for small clean rooms. It became apparent that with minor changes, the chambers could be adapted for this market. Experts in clinical-lab design pointed out that small changes could also let chambers easily work with robotic clinical-chemistry systems used throughout the world. Experts in medical manufacturing suggested installing small robots to assemble FDA-approved devices. And adding data loggers, RFID readers, and bar-code scanners would make it even more capable.

A preliminary sales brochure showed focus groups how the new design could target specific markets. Preliminary marketing research then identified customers who then estimated the market potential.

The client company however, had no experience in the new markets and wanted to remain focused on its longtime customers. So to help enter new areas, Burd's team negotiated manufacturing and sales agreements to provide redesigned chambers for these new markets. This gave the company economies of scale for the basic chamber components and increased revenue without a large capital outlay. Cost reductions came by upgrading fabrication technologies to accommodate increased production. The end results were more revenues and higher profits.