Solenis takes aim at industrial water markets

Unified culture and product development drive growth

Solenis, the former Ashland water treatment business, is turning to industrial water-treatment markets to drive its growth. After establishing itself as a standalone company both operationally and culturally, Solenis is honing in on technically demanding water-intensive industries, such as mining, energy, and pulp and paper, while deemphasizing the municipal water treatment market, executives say. At the same time, Solenis is taking a rigorous approach to product development, evaluating acquisition opportunities, and building a new corporate culture.

Solenis was carved out of Ashland in 2014 by private equity firm Clayton, Dubilier & Rice (CD&R; New York) in a $1.8-billion transaction. The business, which had been formed from multiple acquisitions—including Drew and Hercules—reported about $1.7 billion/year in revenues at the time. CD&R "looks for companies that have global scale that are underinvested in," says John Panichella, president and CEO of Solenis. "Their model is *if we get the right leadership team in there, we have money to invest*. It's not that these are bad businesses, just that the [parent] company had other priorities." Solenis was among the largest pulp and paper process chemicals suppliers by sales at the time of the CD&R acquisition, a position it retains. It also had significant businesses in industrial and municipal water treatment.

The company, however, was lacking in some key operational areas. "When we separated from Ashland, we had an [information technology] department that consisted of zero people," Panichella says. "Same thing in finance: We had no controller, no treasurer, no tax." While this is a common situation for corporate carveouts, Solenis managed to fully separate from Ashland within about a year.

But the culture and the business model presented some less clearly defined challenges. Ashland—which has focused heavily on its specialty ingredients business over the past several years—did not prioritize integrating the Hercules water business, acquired in 2008, with its existing water business, itself cobbled together from various acquisitions. "Part of what we've been trying to do is build this culture," Panichella says. "Ashland never integrated." Under Ashland, former employees of Drew, Hercules, and Stockhausen—all acquired businesses—retained strong identification with their former employers, Panichella says.

PANICHELLA: *Forming a new corporate culture.*

FULGHAM: *Emphasis on product development.*

Solenis is "trying to take the best of all those [companies] and build it into something that is unique," Panichella says. The goal is an organization that is "commercially focused around customers," he adds. This even extends to product development, with Solenis employing a process that involves significant input from customers.

> **» Parts of the pulp and paper business are growing at a solid clip. «**

Another challenge for Solenis was focusing the business model. "Ashland had their water business ... 50% was in water-intensive industries," Panichella says. "But 50% of it wasn't." The business had a top position in the water-intensive pulp and paper industry, and Solenis is now looking to broaden that to other sectors. "We've focused more on the heavy industry space," Panichella says. "That's allowed us to really leverage our pulp and paper business, which is clearly a heavy-industry business model, where its technology and technical service that really make the difference. So it allows us in a relatively small company, with about $2 billion dollars [in revenue], to have one business model."

Technical requirements for water treatment tend to be higher in the industrial space, Solenis says. Chemicals for coolers and boilers in buildings are "not real high-tech, and there's lots of companies...that serve these markets," Panichella says. The municipal water-treatment market comes with its own challenges, including budget constraints and low-bid contracts, and tend to generate low margins. Solenis has set a clear strategy of prioritizing heavy industry.

"We focused on pulp and paper, refining, and mining," Panichella says. "Really, these are the areas where you need your water." Technology and technical service can set a supplier apart from the competition in these water-intensive industries, he adds. "We want to be a business that can provide water solutions and process solutions," Panichella says. "So that's the paper industry. ... It's the mining industry; it's the refining industry."

The company employs process and technical experts in these industries and aims to develop products to meet customers' unmet, and even previously not-thought-about, needs. Growth levels in most of these sectors are solid, and their demand for water treatment chemicals and processes is steady and robust.

This is true even in Solenis's largest end market, the pulp and paper sector. That industry is made up of a variety of subsectors —tissue and towel, packaging, pulp, printing and writing, and recycling. The packaging market grows about 3%/year and the tissue and towel market 4%, according to Panichella.

Printing and writing remains challenged, but the segment has adapted. "In the early 2000s, printing and writing got destroyed," Panichella says. "It really hurt the image of [the] pulp and paper industry. But now that is all kind of behind us." While global growth for printing and writing is anemic, the subsector is growing in some places, such as China and India.

More to the point, the same force that hammered the printing and writing business

—digital media—is boosting the packaging business as online shopping increases the need for shipping packages. "What they're doing in Europe and North America is they're taking all these old printing and writing machines and converting them to packaging machines," Panichella says. "It's kind of ironic that what is careening into printing and writing is the growth engine of packaging."

The tissue and towel market is also growing. The consumption of toilet tissue in China is about 1/25th that of the United States, according to Jeff Fulgham, senior v.p. and chief marketing officer at Solenis. Despite economic uncertainty, "the middle class is continuing to grow in a lot of these emerging markets," Fulgham notes. Machines for tissue and towel production to serve those markets are starting up, he adds.

The energy sector is another challenged end market for water treatment, at least right now. The downturn is being felt most acutely in markets for well-stimulation chemicals and, to a lesser extent, upstream production chemicals. The downstream and refining markets have weathered the drop in oil prices, as Ecolab's most recent quarterly results attest. Solenis, for its part, has a small energy business and still views the sector as a natural area of expansion. "We think that could be an interesting third leg for us," Panichella says. "You know, water, paper, and energy." Acquisitions in the sector could be priced attractively as long as the oil price remains low.

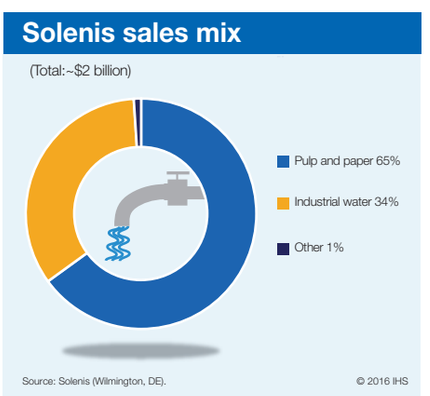
In all of these sectors, Solenis views new product development as a key growth driver. Company management closely tracks the proportion of sales derived from new products, which it defines as products less than five years old. "We've worked really hard on products less than five years old," Panichella says.

Solenis is targeting 25% of sales derived from new products by 2018. The current figure is about 20%, and Solenis's annual revenues are around $2 billion. This metric is one of the key ones Solenis tracks, and it is a key component of the company's success, according to Panichella. Competitors' targets on this metric in pulp and paper and water treatment chemicals are closer to 10% of sales, he says.

While the company is making strong progress toward the 25% goal, "it's a big investment ... and you've got to invest in the right ideas," Panichella says. To find "the right ideas," Solenis has implemented a new product development strategy based upon close interaction with customers.

The strategy involves Solenis representatives interviewing key officials and executives at customers, identifying unmet needs, and developing new product ideas based on those needs. The ideas are then winnowed down to a smaller number chosen for investment.

The process is lengthy, typically taking several months and involving 20 or 30 interviews, but it yields results, Solenis says. "You get into different discussions," Fulgham says. "You go through a pretty extensive interview process, and you do that with multiple people." Solenis then evaluates the feedback to look for significant "satisfaction gaps" that the company can address either through product innovation or acquisition. Groups of employees have been assigned to perform these tasks based around market verticals, such as packaging, refining, and mining. "We've done over 200 of these sessions with customers," Fulgham says.



From those sessions, several hundred ideas have been put forth, which were eventually winnowed down to 14 approved and funded projects. Those 14 projects entail $200 million in projected revenue for 2020, according to Panichella. The process helps ensure a market for new products. "We say look, if we go invest x-million dollars to solve that problem, the customers are going to buy it," Panichella says. The process is now a necessary prerequisite for developing new products. "Now what we're saying is we will not fund programs that have not gone through this process," Panichella says.

One new product that has gotten significant traction in the market is On Guard, a system for monitoring chemical levels in industrial process in real time. The system builds on the idea of putting chemical tracers in treatment chemicals, adding real-time monitoring equipment and data. "We've built sensors that allow you to measure corrosion, deposit control, and biological fouling in real time," Panichella says. "We've got hundreds and hundreds of these units out there now, and customers love it." Real-time monitoring is especially attractive because industrial systems typically contain some level of contamination, and chemical tracers do not always pick up the small variations. "They always get contamination," Panichella says. "So real time really resonates."

Gaps in product capabilities can also be filled by acquisitions. Solenis's first acquisition as an independent company, Clearwater Specialties, added technologies and intellectual property (IP) in the tissue and towel space. "We're growing significantly in tissue and towel," Fulgham says. "[Clearwater] had unique IP that we weren't going to develop in-house." Solenis has also made acquisitions to fill in new markets and geographies, such as an ethanol processing chemicals maker in Brazil and pulp and paper chemicals makers in Europe and Australia. The Brazil acquisition added a position in the sugar ethanol refining market since Solenis already had a position in corn ethanol, Panichella notes. Solenis maintains an active M&A pipeline, with over 100 possible deals. Such "small, low-risk" M&A is appealing to Solenis, and the company intends to make more acquisitions, Panichella says.

While these deals have mostly been small bolt-ons, adding a larger business is a possibility, according to Panichella. The energy market would be a strong fit for the company and is a possible "third leg," he adds. While valuations in energy have been depressed because of low oil prices, downstream and refining businesses—where Solenis is interested in playing—have not been hit as hard as upstream. The company is also looking at minerals and mining as areas where larger acquisitions are possible.

The next stage in Solenis's growth may also involve moving beyond private equity ownership. An initial public offering would be a "logical outcome" for the company, Panichella says. CD&R often takes companies public, he adds. A sale of Solenis cannot be ruled out, but the company is building for its future at a solid pace. "We're not there yet," Panichella says. "But we've made a lot of progress, and we think in the next 6–12 months if we continue to make this kind of progress we'll be in a position to do something." **—VINCENT VALK**