

Playing to strength

Need to clean your cleanroom, train your employees on gowning and manage a practical ESD program? Now may be the time to give outsourcing a try

by Chris Anderson

As cleanroom end users continue to weather the latest recession, one thing has become apparent: those who have both operational flexibility and the ability to move quickly when the market heats up will best leverage the next boom.

In the world of cleanrooms, the time for outsourcing is now.

While outsourcing is nothing new—perhaps the biggest and best examples are the myriad companies offering to manage garment programs—it can offer a blueprint that allows end users to focus on core competencies and better leverage their real and intellectual capital.

In short, if your company is best at designing and manufacturing integrated circuits, that is where the resources of the company should be focused. Need to clean your cleanroom, train your employees on gowning and other cleanroom procedures, clean critical parts and components or develop and manage a practical ESD program? Then maybe turning to the host of com-

panies and experts who provide these services is the way to ensure you turn out the best product you can in a cleanroom fine tuned to your company's specific needs.

“An important reason for outsourcing is the desire of companies to focus on the things that really differentiate them in the marketplace.”



says Michael F. Corbett, founder and president of Corbett Associates, a LaGrangeville, NY, outsourcing research and training company. "So the question is where am I, as a company, going to create a competitive differentiation and where are my customers going to view me as really being superior to the other choices in the market?"

When managed properly, outsourcing can bring the best and brightest to work for you without adding workers to your payroll. At the same time, it can elevate the performance of your employees by allowing them to manage *results* as opposed to employees.

Also, as many industries that use cleanrooms are cyclical, outsourcing some functions can be a way to manage smoothly through the down periods and be better prepared for an upturn. "If a service provider has resources in place that your company doesn't, you can come online quicker and can scale up and down using that business relationship with those partners based on what is happening with your business," notes Corbett.

Working from your core

In the break-neck pace of industries using cleanrooms, time is of the essence. Short product cycles and increased competition means saving even a couple of weeks in get-

ting your product to market can be the difference between success and failure. This is where service providers feel they best help companies.

"The model is shifting more and more to outsourcing, which is what we believe will need to happen for companies to stay competitive," says Richard Yerman, vice president of marketing and business development at Pentagon Technologies, a provider of critical components and other cleaning services, based in Livermore, Calif.

"Companies are going to need to focus more on their core competence and their intellectual property. If you look at the semiconductor industry, there are employees under their roofs doing non-core jobs that don't improve the intellectual property. Those are the perfect jobs to be outsourced."

Aside from allowing companies to manage to their strengths, be it pharmaceutical R&D or the development of better-designed semiconductors, outsourcing allows companies to get the best and brightest minds in contamination control, ESD, employee training and a host of other specialties to make sure a cleanroom is functioning properly.

"If you are an in-house manager at 'John Smith Co.' and you've been given the push by the CEO and production management to

maintain a certain level of cleanliness in a cleanroom environment, you need to do what it takes to provide that," says Ian Wallis, founder and president of Microcomplete, a division of Crothall Services Co. "Often, the manager is not fully apprised of the latest and greatest in industry trends, materials or equipment and may even be ignorant of basic standards and practices."

Chris Zines, president of Critical Cleanroom Services of San Clemente, CA, says the fact that his company cleans cleanrooms in a variety of industries provides a diversified level of service and knowledge that's hard to come by working within the



The evolution of an outsourcing company

BERKELEY, CA—Ion Systems Inc. spent its first 20 years in business providing ionization and static-control products to the electronics and semiconductor market. But then a funny thing happened.

Customers began requesting more than static-control products from the company. They began asking for static-control services to help with a comprehensive approach to their ESD and EMI challenges.

As a result, just a year and half ago, Ion launched a division focused solely on providing outsource ESD and EMI services to cleanroom operators in a variety of industries.

"We started very gently," says Arnold Steinman, chief technology officer of Ion Systems. "Over the years, the change for us started in the disk drive industry because that is where static-control became essential it wasn't just a production enhancement.

"When we first provided electrostatic management, it was an added value to our customers," Steinman continues. "Now we

see it as a separate function within Ion Systems which we are now calling electrostatic program management."

The path that Ion took to becoming a service provider is fairly common to those taken by other outsourcing companies in other industries, says Michael F. Corbett, president and founder of Corbett Associates, a LaGrangeville, N.Y., outsourcing research and training company.

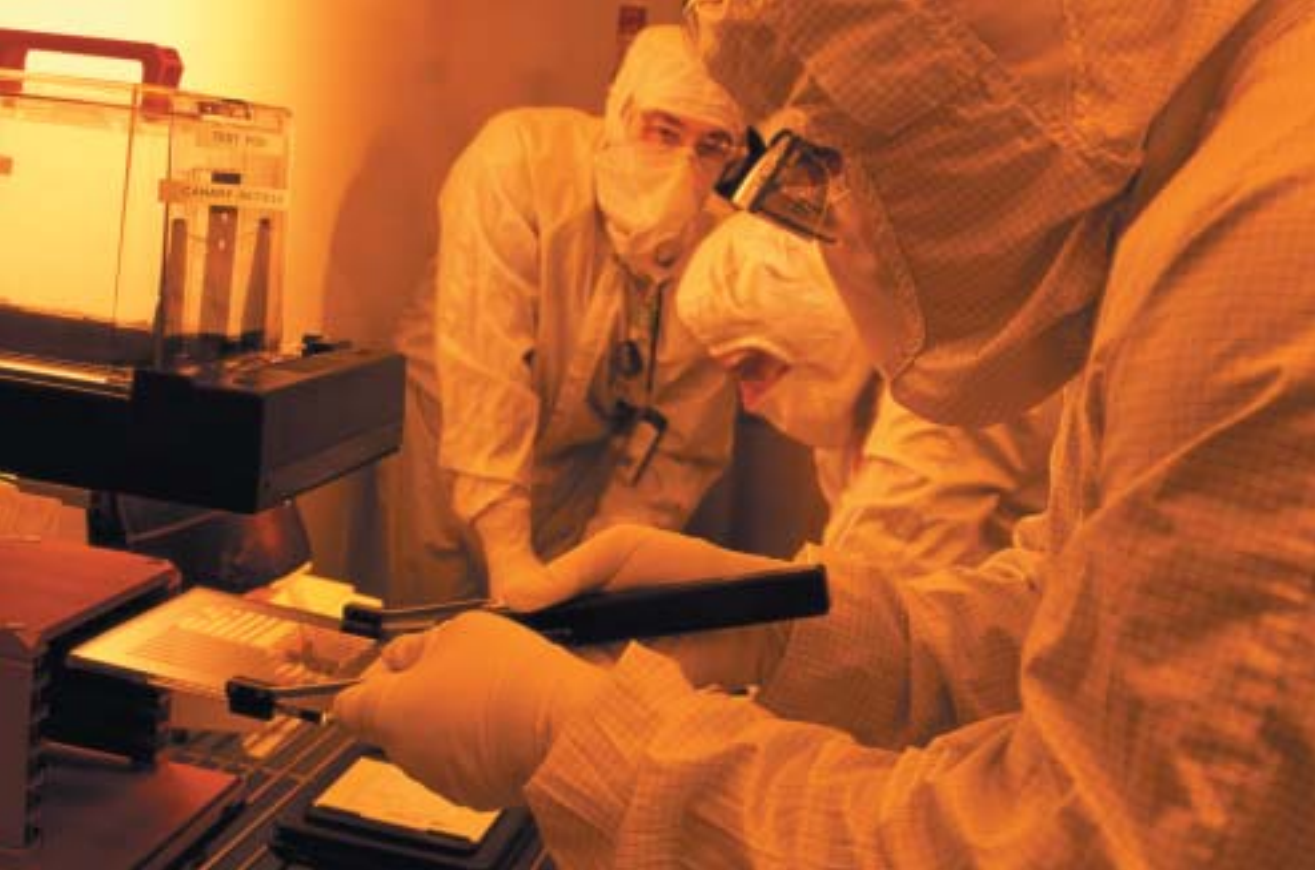
"Outsourcing companies evolve," he says. "There is almost a pull effect where a client has pulled a service provider to partnering into an expanded role and once they get there they realize 'hey, this isn't so bad.'"

Still, once Ion realized it could capitalize on its expanded role as a service provider, it still had some work to do. "We brought on a number of people who had demonstrated expertise in that area so we could enhance our offerings," says Steinman. "Now, we're most interested in developing the in-house expertise to provide these ESD and EMI services."

Part of the development process included finding the best and brightest thinkers in this specialty. One such person is Ted Dangelmayr, who has more than 23 years of experience developing and managing a global ESD program for Lucent Technologies.

"This is the real strength service providers need to provide to their clients," says Corbett. "They are making a sustained investment in getting the best people in their field and support them with the best processes and technology."

As a result, service providers should be those that are constantly improving and pushing the technology in their niche. "When you go to an outsourcing provider you should look at them and say 'Wow you guys are doing things that we won't have on line for six months and you already have things on the drawing board for a year from now that we haven't even thought of.' That is the hallmark of a good outsourcing service provider," says Corbett.



tomers, says outsourcing expert Corbett.

“Outsourcing companies achieve this by continually investing in the people, the technology and the processes,” he says. “Because to stay in business they need to do what they do better than anyone else. And they can do it better than anyone because they are making a sustained investment in getting the best people in that field.”

Proponents of outsourcing say that means companies can have the best of both worlds. They can invest in the best and brightest in their

Ion’s Dangelmeyer says there are many instances where a company once had a strong ESD management program but “lost the art” of implementing it properly.

walls of a single company.

“We have broad-based knowledge of the cleaning that takes place not only at one company, but 150 companies,” says Zines. “Using

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—Mike Gaburo



the knowledge we’ve gained from all of them, we’re able to put together a critical cleaning program that is appropriate for both solving a customer’s needs and is also in line with

their cost consciousness.”

Many companies do hire and retain internal employees to perform non-core cleanroom functions. Often they are added responsibilities for engineers or technicians whose primary job is something completely different. Further, since things such as cleaning the cleanroom or managing an ESD program are not directly related to the company’s product, they are often left to junior members of the team.

“The process ‘owner’ turnover rate within companies is very high, especially in ESD programs,” says Ted Dangelmeyer, director of technology and program design, Ion Systems, Berkeley, CA. “Someone would get in the position and a year or two later would move onto something else.” The result is a loss of expertise that employee may have developed along with a loss in program continuity.

Dangelmeyer notes that Ion, which provides electrostatic management services, has encountered many instances where a company once had a strong program for managing ESD in their facility, but for a variety of reasons “lost the art” of implementing it properly.

But it’s the service providers business to not only maintain that knowledge base of how to implement these best practices, but to continually build on the accumulated experience and leverage that for the good of its cus-

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industry, while hiring the best and brightest specialist for their non-core activities.

Making outsourcing pay

Of course, hiring the best and the brightest service companies makes little sense if they are not able to tailor services to the unique needs of your business.

“It is really up to us to save our clients money and make their lives easier,” says Mike Gaburo, vice president of Cintas Cleanroom Resources, a provider of cleanroom garment services and supplies. “If we can do that I think they are going to be a willing audience.”

The provision of the services, according to providers, should have a positive affect on the



According to Michael Corbett, outsourcing companies invest in people, technology and process because they have to do what they do better anyone else.

bottom line through savings in employment costs, increases in efficiency, increases in

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product yields or all three. Most service providers know this implicitly.

“Microcomplete does not shine very brightly if we are just perceived as another cleaning company,” says Wallis. “We need to work with the quality department to devise a plan that will fit with their goals if we are going to be effective.”

While increased yields will boost a company’s profitability, there are also more obvious up-front savings associated with contracting with cleanroom service providers. The most notable savings is in payroll and the associated insurance and benefits costs of retaining an employee to do a job that could be outsourced.

“I’ve been called in to a number of companies with their own cleaning program and more often than not they are severely over-staffed,” says Wallis.

Performance issues, in many cases are also easier to manage with an outsourcing company than with an internal department. “If there are performance issues, and it’s an internal function, there is always the possibility they will ask for more people or more money to do the job,” says Corbett. “With an outside company providing the service, they can’t ask for more money, they will just work to solve the problem.”

Outside service providers are prepared to weather downturns in the economy or ride out the inevitable cycles of many industries that run cleanroom operations. “We don’t have as big a problem with layoffs because our people

can serve multiple sites,” says Pentagon’s Yerman. “So when one industry slows down we can usually keep everyone busy serving another until the first one picks up again.”

But why are outsourcing companies able to provide even the most basic services cheaper?

Part of the answer is found at your local fast food joint. “These companies must have exceptionally good execution,” says Corbett “They have to be like a McDonalds from the standpoint that McDonalds does what it does extremely well because they do the same thing over and over and have incredible systems and operational excellence.”

Still outsourcing is not for every company. Management philosophies, company culture and control issues all play into whether a company is comfortable farming out some of its functions to outsiders. As Gaburo notes “there is always going to be that balance between the desire for control and the desire to get non-value added things out of customers’ hair. Different companies define that differently.”

Corbett agrees. “If a company is going to outsource, it needs to develop another management structure according to how it does business,” he says. “You can’t go in and micro-manage when they are doing the work. So you need to become more professional yourself and clearly define the outcomes you are looking for in objective measurable ways. If this is done, the service provider can work with those expectations. Clearly, some companies aren’t comfortable enough to change in this way.”

Yet, those interviewed for this story feel that outsourcing for cleanrooms will only increase in the coming years. In some cases it may be the direct result of the recent downturn. “About the only benefit anybody will tell you about any kind of downturn,” says Arnold Steinman, CTO of Ion, “is it provides breathing space for companies to look at all of their systems and make decisions about what is the most efficient way to run the company. As a result, I think more and more will look to outsourcing.”

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