High Tech Rethinks Its Selection Criteria

Area Development Site and Facility Planning
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Since the advent of high tech, the term has expanded to encompass more and more disciplines, making site searching a very nuanced and important process.

SITE SELECTION FACTORS For high-tech firms have changed over the past decade, and with good reason. That's because the definition of a high-tech business operation has morphed, bringing new challlenges to the selection process.

The New Terminology

"Fifteen years ago, the term 'high tech' described companies engaged in two primary areas: software development and memory-chip development," explains Dr. C.R. "Buzz" Canup, president of site selection services for AngelouEconomics in Austin, Tex. Today, he says, that definition includes computers and electronics: software development and maintenance (including Internet and web-based activities); telecommunications: biomedical, genetics, and genome research: nanotechnology; and myriad advanced manufacturing and industrial technologies.

Ed McCallum, president of McCallum Sweeney Consulting in Greenville, S.C., offers a catch-all phrase for this ever-widening industry mix: knowledge-based general manufacturing. "These are companies which need lots of workers with high-tech skills, and/or the process itself is extremely complicated," he says.

That list can be further expanded to include high-tech companies associated with environmental and pollution-control technologies; agricultural and food sciences; government programs related to energy, transportation, space, and astronomical sciences; and unknown technologies grown from ongoing ROtD efforts.

Top Selection Factors

The primary driving factor for high-tech firms is a qualified work force, Canup notes.

"That must be present, or nothing else matters," he asserts. "These companies are seeking out folks with higher-ed degrees, especially masters and doctorates; most have specifically targeted areas for curriculum, etc. They like candidates with strong industry/business experiences and backgrounds." In particular, advanced degrees in physics, chemistry, or biology are highly prized.

To be in the running, a community should show evidence of a stable work force with low turnover; an ability to recruit and retain highly qualified employers from outside the region; work-force diversity; an ability to recruit and retain foreign workers to the region; and acceptance of foreign workers. Often places in geographical areas/regions that are growing faster than the national average help solve some of these work-force challenges.

The company's image is another consideration for a location under review. "It will need to be welcomed into the community, and find ways to create a positive image as a great place to work and a 'good neighbor,'" Canup says. And while many cities are scrambling to attract high-tech jobs, not every city makes high tech its numberone goal; and not every city believes these types of companies will be the right fit for its community.

For those that do, proximity to universities with strong R&D backgrounds is important, too, Canup says. "They can give R&D support, both independently and through private financial support; as well as deep involvement in federally funded research programs. Such institutions also provide graduates for recruitment and hiring, plus new product developments including new technology that can be commercialized and taken to the market.

"A probusiness climate is also vital," he notes. For instance, state corporate income tax apportionment formulas can be very important. State corporate income taxes are apportioned based on the percent of property, payroll, and sales that a corporation has within that particular state. Sales for most hightech companies occur outside the state in which they are located.

"Many states use a three-factor formula whereby each factor carries an equal weight," Canup explains. "Some states use a four-factor apportionment whereby sales is given a double weighting; i.e., 50 percent of the apportionment formula. Assuming the company has a very low percentage of sales within that state, its net effective tax rate could be reduced significantly: in some cases by nearly 15 percent. This can translate into huge savings for companies producing high-volume, high-priced products."

Additional beneficial factors include property tax abatements and accclerated depreciation schedules for production, mamitacturing, and other equipment, which can be just as important as abatements. Moreover, incentives and any tools that help a company reduce costs are becoming increasingly more appealing.

For most high-tech companies, venture capital is not a strong factor, but it may influence startups searching for their financial footing. Payroll taxes (i.e., personal, worker's compensation, and unemployment insurance) can greatly impact the overall costs, too. "For example, places that levy a payroll tax against employee earnings are considered punitive and undesirable," Canup says.

Traditionally "softer" site factors have weight for many of these knowledge-based firms and their educated workers. These strong quality-of-life elements could include competitive costs for housing and food, access to the arts, and entertainment options.

Common Mistakes

McCallum of McCallum Sweeney Consulting says one of the most common mistakes "is looking at the cost structure on a short-term basis, and not fix-using enough o softer factors. Securing and keeping good employees and a good knowledge base are the long-term effects of being successful in this respect."

Another mistake, he notes, is making decisions weighted too much on incentives. "Way too many companies do this. Sure, incentives can be beneficial. But they're the very last thing that should be looked at."

Conventional wisdom says high-tech firms should move to areas flush with prestigious higher-ed institutions. McCallum advises them not to be swaved by that siren call without a thorough investigation. "Companies must pay attention to lowering the costs of doing business and keeping quality high when researching a location. But sometimes it's very easy to get executives swayed by the glamour of research being done at a specific university, or by the fact [that] certain companies and clustered there. If what they do really adds nothing to your bottom line, or it the knowledge base is not transferable to your firm's business - big deal: why locate there?"

Conversely, he says, once a high-tech firm reaches critical mass in a cluster, it's wise to reassess why it should stay in that spot. "Management should routinely ask themselves if there are enough good reasons to remain and provide more- profit and value to the stakeholders." If the answer is no. a move may be in order.

On the topic of the work force. McCallum is concerned that America is losing more

players in some of its strategic industries (such as textiles and steel) due to outsourcing. This won't stop, he says, until our vocational training is as good as or better than the European model. "In lots of knowledge-based industries in the U.S., we need many more graduates from topnotch training facilities."

Part of the underlying problem, McCallum continues, is that American students, particularly those graduating from high school, "are not as well prepared as they need to be to fill high-tech positions." Yet overall, he says, the educational levels and training of the college graduates sought by these firms seem to be "somewhat improving."

A Southern Case History

After reading about the top site selection factors, can you guess why a Texas-based computer company would open a 500,,,,-square-foot manufacturing facility in Winston-Salem, N.C., this fall? Was it due to clusters? Worldrenowned research facilities?

The official press release explains that the site met "all the criteria for the company's long-term operations - including proximity to employees, development readiness, topography, and highway access - all of which were prime factors in the selection." The plant is expected to employ about The people in its first year, and as many as 1,500 employees within five years.

In another development. North Carolina has offered Dell as much as $242.5 million in tax credits and grants over 20 years. The Dell plant will make PCs for its nearby customers on the East Coast. However, one consultant interviewed believes the project has another big factor in the mix: "I think Dell simply decided it was best for business to be close to a major FedEx processing center." This move, he says, will decrease product delivery times and increase customer satisfaction. FedEx plans to open an overnight cargo hub at Piedmont Triad International Airport (PTI) by June 2009 to serve the Mid-Atlantic region.

The Rise of Clusters

At the city level, general technology clusters are thriving around the nation. Some of the most well-known of these are found in the cities of RaleighDurham. N.C.; Austin. Tex.: San Jose. Calif.; and Boston. For some high-tech firms, the existence of technology clusters in a potential locution can be- a corporate aphrodisiac.

Smaller high-tech clusters an' growing at their own pace, and making waves nationally and globally. Take Albuquerque. N.M. Here 40 locally grown technology

companies more than doubled their employment and increased their revenues by 50 percent in the last three years. This group, nicknamed the "New Mexico Fixing 40," represents the industries of aerospace, electronics, IT. software, biotech. and optics/photonics. Members have been successful at capitalizing on "regional strengths ami global market opportunities."

In 1999 a public/private partnership formed in Albuquerque called Next Generation Economy. Inc. (NextCen). Its purpose is to help metro New Mexico technology clusters develop and market their unique strengths, and serve as an anchor for the U.S. microsystems industry. It may just happen. NextGen's mission is seeing fruition in plans to build α fabrication plant that will house $17.5 million worth of microsystems maiiulacturing equipment; some of which is to be initially installed at the University of New Mexico's Manufacturing Training and Technology Center.

Mike Skaggs, president of NextGen, has said the organization "enjoys the privilege of coordinating the transition of the Central New Mexico economy to one based on clusters which have formed around the core competencies of Sandia National laboratories, the Phillips Air Force Research Lab, Los Alamos National Laboratory, and the University of New Mexico." Here is yet another example of how local research and educational resources can help attract and then sustain knowledge-based companies in a community.

Where's the High Tech?

Since the ever-widening definition of a "high-tech" company encompasses both traditional types and those with only tertiary use of advanced technologies and highly skilled workers, it is more difficult these days to pinpoint where the geiierically identified "high tech" companies are located in the United States.

However, the AeA offers some insights. AeA is a nonprofit trade association that represents all segments of the more traditional "technology" industry; most notably firms doing work in software, semiconductors/components, and telecommunications. Each year it releases a study detailing national and state trends in high-tech employment, wages, exports, and other economic factors.

This past April AeA released its newest report. Cyberstates 2005: A State-by-State Overview of the High-Technology Industry. Using the most up-to-date data, this latest study found that in 2003 California and Texas remained the leading cyberstates by technology employment, followed by New York and Florida. Next came Virginia, which took over fifth place from Massachusetts. Colorado and Virginia led the country in concentration of high-tech workers.

One industry, nanotechnology, has companies just about even-where. In 2004 approximately 670 nanotech firms (mostly startups) were located in the United States, according to a United Press International (UPI) news story. As they move from the lab to the factory floor, some are developing partnerships with established corporations, just as biotech did a few years back. In fact, the UPI article also reported that 10 of the 30 corporations that comprise the Dow Jones Industrial Average have announced nanotech partnerships.

In the end, what type of community does a high-tech firm seek? The ideal community will work with a high-tech company to educate and supply the best workers possible, and support probusiness laws benefiting the bottom line. In turn the company will be a great community neighbor, and will respect and continually educate its workers.

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[Sidebar]

One of the most common mistakes high tech firms make is focusing too narrowly on short-term cost benefits and giving short shrift to the "softer" selection factors.

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