UCSC - Research Park

Can UCSC play in high-tech 'big leagues?'

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SANTA CRUZ — According to Kent Mathewson, adjunct lecturer in urban studies at the Lyndon B. Johnson School of Public Affairs at the University of Texas at Austin, university campuses competing for private, high-tech R&D investment are playing in a "world-quality league."

High-tech research knows no geographical boundaries. Companies are just as likely to locate new R&D and associated manufacturing facilities in Texas and North Carolina as they are to expand in California.

Can UCSC, where officials are currently pondering whether to go ahead with a proposed campus "Research and Development Center," really play in the "big leagues?"

Interviews with those in the high-tech industry and other observers suggest that the answer to that question is a qualified "no."

By university officials' own accounting, UCSC lacks depth when it comes to the kinds of basic research programs which have attracted industry to research parks at Stanford and Princeton universities and the University of Texas at Austin.

The Land Economics Group, a consulting firm commissioned in 1982 to study the R&D Center's "financial feasibility," has asserted that UCSC can overcome this seeming handicap. According to the consultants, the Santa Cruz area's superior "amenities," and its lower land, housing and labor costs, compared to Silicon Valley, should be sufficient draws for the valley's high-tech firms.

Industry spokespersons readily acknowledge the charms of the Santa Cruz area, and its cost advantages in comparison to Silicon Valley. But they also indicate that the extent of existing research programs and the availability of a large pool of science and engineering professionals counts for as much, if not more than, land, labor and housing costs when it comes to deciding where to locate new facilities.

"There's nothing to say it can't be done, particularly with the kind of demand that exists for space," said Advanced Micro Devices spokesman Christopher Law, when asked about UCSC's park development prospects. "Certainly, they've got a

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beautiful location (and) the proximity of Santa Cruz to Silicon Valley would be attractive."

But not necessarily to Advanced Micro Devices.

Law noted that the Sunnyvale firm is "already affiliated with Stanford and quite heavily affiliated with UC Berkeley."

In all, he said, the firm is connected with 13 schools around the country. UCSC, he said, "is starting a little late; a lot of other schools have beat them to first base on that (research parks)."

Rosann Clavelli, a spokeswoman for National Semiconductor Corp. in Santa Clara, acknowledged that "quality of life is a real primary factor" in deciding where to locate a new facility.

But, she indicated, other factors are equally important. "Nearness to a university is always a factor, especially one that has an engineering school," she said. "The availability of talent is really important; we want to locate in an area where an engineering school is feeding (us) talent, or there are other, similar companies, so that we have some sort of labor pool."

Inexpensive labor is not a certain attraction for high-tech firms, particularly on the research end of the industry, she said.

"I don't know that cheap labor is the answer," said Clavelli. "You need talented labor. Somewhere, you've got to have a nucleus of people trained in computer sciences.

"I don't think we're different from anyone else," Clavelli said.

National Semiconductor is apparently satisfied for the time being with the Silicon Valley labor pool. Clavelli said the company is building a new, $75 million research facility there.

At Santa Clara's Intel Corp., spokeswoman Rebecca Wallo says that proximity to a university, while "always attractive," is not the "thing Intel would swivel its (facility-locating) decisions on."

The company also looks at "quality-of-life," and particularly, housing costs, she said.

Intel's manager of corporate new construction, Gerald Stratbucker, said that "on a relative basis, Santa Cruz may have some attractions over Silicon Valley," where land and housing costs are concerned.

But Stratbucker, who noted that Intel is currently building a new facility in Sacramento, also cautioned, "On a relative basis, it (Santa Cruz) may be more expensive than other possibilities."

And Wallo, speaking specifically to UCSC's proposed park project, mused, "It seems like you need to develop a (research) program first, to give industry a reason to move there.

"Just to offer the space — I don't know if that's sufficient," she said.

In the view of former Advanced Micro Devices vice president Thomas Skornia, it's not. Skornia, a Silicon Valley attorney who represents high-technology firms, said UCSC officials may be "whistling Dixie" on the R&D Center project.

As Skornia sees it, the UCSC campus may actually be "too close to the main action" to draw firms away from Santa Clara County. "To the extent they (Silicon Valley firms) need to get graduate engineers," Skornia said, "they can get them from Stanford and Berkeley."

Lacking strong research programs, and, for the moment, an engineering school — the campus will offer an undergraduate engineering major for the first time this fall — is UCSC putting its cart before its horse by pushing for a campus research and development center now?

UCSC environmental planning professor Paul Niebanck doesn't think so.

"I don't think there is a cart or horse on this," he said. "It's an instance of going where the opening is and keeping your head."

But the University of Texas's Mathewson disagrees.

UCSC officials are hopeful that establishment of the R&D park will strengthen and promote the growth of the campus' currently "thin" graduate research programs. But Mathewson, who has studied "high-tech enclaves" from coast to coast to determine what makes or breaks them, says the campus should concentrate on building up its programs first.

"Beefing up research substantially should be the first move," he said.

Mathewson said that a variety of factors, including some in which Santa Cruz is strong, figure into the success of university R&D ventures. But, he said, of all the factors, direct and indirect, bearing on the success of such developments, "The number-one most important is excellent high-tech university resources.

"If you don't have that," he said, "I really think you might as well forget it.

"The honey that's drawn the bees (to other R&D parks)," Mathewson said, "is the collection of brainpower."

There seems to be no question that UCSC can boast of having a disproportionately large number of fine intellects for an institution of its size. But the campus's annual research budget is still only $7 to $8 million, compared to tens and hundreds of millions of dollars at other universities. And when it comes to competing with those institutions for R&D park tenants, UCSC may find that its faculty's collective wattage is still too low.