McCallum Sweeney Consulting
the geography of business

October 4, 2007

Honorable David Wu
Chairman, Subcommittee on Technology and Innovation
Committee on Science and Technology
Suite 2320 Rayburn House Office Building
Washington, DC 20515

Dear Representative Wu:

Thank you for the opportunity to testify before your subcommittee at the hearing entitled "*The Globalization of R&D and Innovation, Pt. III: How Do Companies Choose Where to Build R&D Facilities?*".

Introduction

I am a founder, co-owner and Senior Principal with the firm McCallum Sweeney Consulting, Inc. (MSC) of Greenville, SC. We are a site selection consulting firm; we help companies decide where to build their new facilities. We help companies from all over the world look all over the world, although the vast majority of our search activity is in North America. We help all types of companies with all types of projects, including headquarters, back office, research & development, manufacturing and logistics/distribution. Additional information about our company, our services and our recent clients can be found at our web site: www.mccallumsweeney.com.

Site selection can be seen from many perspectives, but it perhaps most clearly seen as bringing geography to the capital investment decisions of companies. Companies identify an opportunity – it may be for a new product, or new markets, or for increased r&d, or to meet growing customer service demands. Whatever the opportunity or need may be, a lot goes into the decision to spend capital to establish and operate a new facility. One important question in this decision is "Where?". Many of the factors that are important to a facility project will be different in different locations, so where a company decides to build and operate impacts the success of the investment and enterprise.

The Site Selection Process

The approach our firm takes with clients is a rational, phased approach. It starts with understanding the company's investment project and its strategic and operational drivers. These will vary with each project by project type (e.g., r&d vs manufacturing). From these indicators we will help the firm establish a search region. For industrial projects, this is typically a contiguous region defined largely by in-bound and out-bound transportation costs. For office-oriented projects, the search "region" may be a discreet set of locations typically defined by key labor characteristics. The search region is screened against various statistics that measure the project decision criteria, using geographic information systems

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(GIS data). This determines our Areas of Interest. These are further investigated to narrow the search to a set of Candidate Communities.

Candidate Communities have met the basic needs of the project and will be the focus of field investigations. In the field we thoroughly investigate Physical Conditions (sites, buildings, infrastructure), Operating Conditions (labor, utilities, transportation, taxes), and Living Conditions (quality of life issues including community assets, housing, medical, education, security, cultural and recreational assets, etc.). After considerable comparative analysis, this phase concludes with selection of Finalist Communities.

For MSC, only locations that are viable will move to the Finalist group. The Finalists will likely present different strengths and weaknesses but will all be understood at that point to be locations in which the project could operate successfully. The final phase is final due diligence on key factors (sites, labor markets, etc) as well as final negotiations, including incentive negotiations. Detailed financial modeling is completed as well as final risk assessments, and a final location is selected in which to site the facility.

Key Decision Factors

A lot of factors go into a site selection decision. The relative importance of various factors will vary with i) the nature of the project and ii) the stage of the project. For a broad generalization, projects can usually be understood to fall into one of two groups: those whose initial and primary drivers are “people-driven” (for example, r&d facilities) and those whose initial drivers are “site-driven” (for example, large manufacturing facilities). All projects will deal with site issues, and all projects will deal with human resource issues, but this distinction shows the primary driver and influences on various projects.

Research and development facilities are people-driven. The most important factor in locating such facilities is the availability of high quality skilled labor. This will include availability of such human resources in the community as well as the ability to effectively recruit and retain such talent to the new location. And for r&d facilities in particular, this recruitment will likely take place on a global scale.

So, detailed criteria evaluations for r&d facilities will focus on a wide range of human resource issues. On a broad level such things as education attainment statistics, the presence of graduate degreed individuals, the presence of other r&d activities, the presence of strong colleges and universities, even the community’s local education system will be assessed. The ability to recruit and retain talent from around the world will focus the decision makers on community characteristics, including support for diversity, a wide variety of strong cultural and recreational assets (often favoring urban amenities), adequate housing at various levels, strong medical infrastructure, comfort with the security of the location, and excellent transportation and communication infrastructure.

Final decisions will come from comparing the strongest candidates against each other on these factors and the overall cost of the project. Costs can vary significantly from one location to the next, and these include both up-front investment oriented costs as well as on-going operational costs over years. Incentive negotiations are typically very important in these final stages of the decision.

Incentives do influence location decisions. Generally, projects drive incentives, not the other way around, and incentive become more important as the project proceeds. Incentives cannot make a bad location good, but can create or accentuate differences between the final candidates. Incentives typically provide a company with i) lower costs, and ii) lower risks. Incentives can take the form of grants, access to capital, lower cost capital, infrastructure support, recruitment, screening and training support, utility cost reductions, and a wide variety of tax advantages from exemption to credits to abatements.

While many factors have brought a company to its final decision, the final financial comparisons have a major influence on the final decision. For r&d facilities, all finalist locations should be ones where the "people" issues are found to be acceptable, so incentives help create distinctions among a set of acceptable alternative locations.

Competition for R&D

The geographic expansion of location decisions to a global perspective is well documented. Site searches for all types of activities (manufacturing of all types, back office operations, and even research and development projects) are now conducted on a global basis.

The countries and regions that understand the r&d location decision have positioned themselves to meet the needs and be particularly attractive to this business sector. Countries like Singapore and Canada have been very aggressive in supporting education, university activity, research funding, and research and development rules and regulations, all of which attract the attention of r&d location decision makers. Communities such as Singapore and Montreal are very international in scope and so represent a strong location for the global recruitment of key talent. As the source of supply of PhDs and high quality talent grows outside the US, the ability to recruit and retain non-native talent is critical.

Competition and Incentives

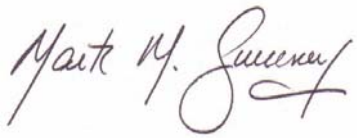
The US can do a lot to enhance its competitiveness for r&d facilities. The US can build on its current success and base of existing advanced manufacturing by leveraging a common desire to keep r&d and manufacturing in close proximity. There are a number of state efforts to establish a strong primary-level research and development base through recruitment of key "stars" in a particular field and building up the r&d and entrepreneurial infrastructure around them; federal support could leverage these efforts with great success. Related to this are efforts to enhance the entrepreneurial sector including licensing policies (especially for joint government-business research and development projects) and access to capital at various stages of development. The Federal government could have immediate impacts on this factor with enhancements of development activities associated with the federal laboratories across the country.

There is a lot on the books for research and development tax credits, but the successful countries are going way beyond that with capital-oriented incentives (grants, very large investment tax credits).

The US must find a way to balance enhanced security concerns with the need to allow recruitment of talent (and lots of it) from around the world.

A “Manhattan-Project” style commitment to key areas of research and development (for example energy) could provide an economic stimulus that could last for years (if not generations)

Sincerely,



Mark M. Sweeney