



Article

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Building a Bioscience Cluster Financial Incentives, Research Institutes, Deep Talent Pools & Support Services Are Critical

Communities across the country are trying to recreate the success of bioscience clusters in Cambridge, LaJolla, Research Triangle Park, and the San Francisco Bay Area. The latest Battelle Report highlights 42 states actively looking to attract bioscience investment with an enticing array of available venture capital, loans, grants, low-cost real estate, and other incentives. If you aggregated the cost of these attraction efforts, you could write a \$40,000 check to every bioscience employee—globally.

Experience suggests, however, that money alone doesn't build a bioscience cluster. What, then, does it take to build a successful bioscience cluster? Is there something inherent to the already successful bioscience cluster locations or can other municipalities join this pantheon?

To answer this essential question NYC Economic Development met with more than 600 bioscience companies in 18 countries. We also reached out to the more than 100 bioscience companies located in New York City and worked closely with the city's major academic institutions. Throughout this exhaustive process we identified the criteria used by companies to make start-up or relocation decisions. Interestingly, the elements used by both start-ups and seasoned companies are quite similar.

What we found is that there are opportunities for new clusters to emerge if critical assets exist. In order of importance, the assets that drive location decisions are:

Proximity to worldclass research science centers—Bioscience companies seek locations near premier academic research institutions. Proximity to these centers is beneficial financially, as academic institutions receive substantial government and private funding for basic research, translating into potential commercial opportunities. In addition there are professional benefits, as scientist founders are able to combine research and commercial pursuits easily.

Access to talent—Bioscience firms must employ highly skilled staff and thus require a deep talent pool from which to draw. Not surprisingly, many laboratory workers are found in and around worldclass academic institutions. These firms also require specialized staff members to ensure success. Urban centers and areas near academic institutions tend to have a larger and a more skilled pool of diverse talent.

Access to funding—These companies need continual funding and rely on an environment rich with investors to provide access to a variety of funding sources. Companies look to create long-term relationships with investors and hence seek a location where they can regularly apprise the funding community of progress.

Quality-of-life factors—Access to good primary and secondary education, affordable housing, and cultural activities ranked higher than previously assumed and is one of the most significant criteria for many companies making location decisions.

Appropriate, adaptable, and affordable lab and office space—Regions hoping to attract commercial bioscience companies must have a variety of building configurations and rental price points to accommodate all types of bioscience firms—from start-ups to fast-growing companies to large-scale manufacturing operations. In addition to wet lab space, successful regions also have a variety of affordable commercial office space to accommodate companies of all sizes and stages.

Entrepreneurial environment—Biosciences require the skills of serial entrepreneurs who can lend their expertise

in navigating the challenges of starting and growing an enterprise. Serial entrepreneurs are in high demand throughout the global bioscience industry. Regions with a history of entrepreneurial activity and a strong entrepreneurial community are better equipped to develop a sustainable cluster.

Availability of support service providers—Scientific talent alone will not grow a sustainable bioscience company. Companies need access to a wide variety of specialized professional support services.

Access to patients and markets— Spiraling drug development costs and long lead times have increased demand for more personalized medicine. Successful bioscience companies look to get their products into diverse patient populations more quickly and to more efficiently identify select patients on which their products best perform. Ethnically diverse areas provide good pools of potential participants for multivariable clinical trials.

Favorable incentives and tax treatment—Bioscience companies actively seek opportunities to offset their high R&D costs. According to the Battelle Report, government incentive programs, in the form of direct grants or indirect tax benefits, are often the primary tools used to attract companies to a region. As attractive as these programs may appear initially, bioscience companies are concerned with ease of access and the cost of ongoing compliance and administration. If existing programs are too complicated or time-intensive, bioscience companies will look elsewhere for a home.

Perhaps the most surprising conclusion of our inquiry is that favorable incentives and tax treatment are rated last. And even where these critical assets exist in one area, the challenge becomes to bring together the academic, commercial, and public spheres to leverage and promote those assets and create an environment that is attractive to bioscience companies. Regions looking to attract bioscience firms need more than financial incentives, they need to create a mechanism through which academic and research institutions, the funding and investment community, and the public sector can work together.

New York City's Bioscience Initiative leverages the city's strengths in these areas. The city's research institutions receive almost \$1.7 billion annually in R&D funding. Area institutions have registered 6,800 bioscience-related patents, and New York City has one of the largest pools of scientific and medical talent. Additionally, the city is home to over 130 VC firms. New York City's bioscience cluster is physically growing as well with new lab and office space at the East River Science Park.

Bioscience clusters require a base of academic, professional, and financial institutions to grow. The degree to which regions looking to attract such companies can be successful will likely depend on the combination of its underlying assets, along with a dedicated and proactive recruitment mechanism. It remains to be seen what areas will emerge as new epicenters of commercial bioscience activity. What is clear, however, is that opportunities to catalyze their development do exist.

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Bill Fair is the managing director, healthcare & bioscience, at NYC Economic Development. Web: www.nycedc.com. E-mail: bfair@nycedc.com.