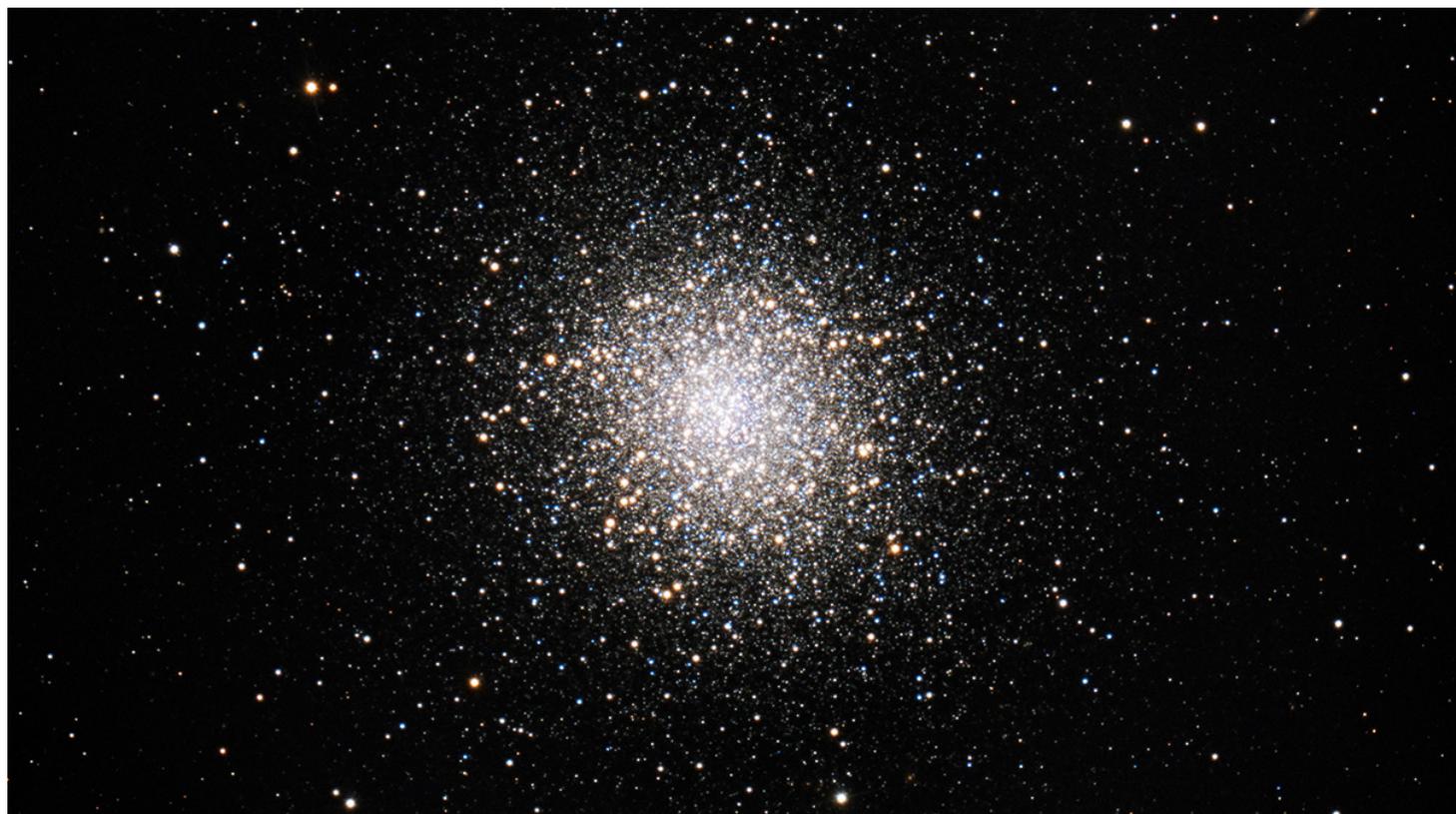


INNOVATION

The Rise of Urban Innovation Districts

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The geography of innovation is shifting. For proof, start with Google, which over the past 10 years has taken the core R&D and innovation-oriented activities it once housed only in Silicon Valley and extended them into cities. The company's presence in London's Tech City, New York City's Chelsea district, and Pittsburgh's Bakery Square reflects

management's calculation that being in cities increases the company's access to growing tech-oriented ecosystems, advanced research institutions, deep pools of talent, and distinct regional specializations.

In its decision to go urban, Google has been joined by not only other tech firms such as Twitter, Microsoft, and Spotify, but also companies like Comcast, Amazon, Pfizer, Quicken Loans, and countless numbers of small start-ups and entrepreneurs. (Our recent research for the Brookings Institution, "The Rise of Innovation Districts: A New Geography of Innovation in America," provides the larger context for these corporate choices.)

For the past 50 years, the landscape of innovation has been dominated by regions like Silicon Valley—suburban corridors of spatially isolated corporate campuses, accessible only by car, with little emphasis on the quality of life or on integrating work, housing, and recreation. After visiting dozens of U.S. and European cities, interviewing hundreds of practitioners and experts on the ground, and scouring scholarly analyses of investor and firm behavior, we are convinced that a complementary new urban model is now emerging, in the form of what we and others are calling "innovation districts."

These districts, by our definition, are "geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators, and accelerators. Compact, transit-accessible, and technically-wired, innovation districts foster open collaboration, grow talent, and offer mixed-used housing, office, and retail."

Globally, Barcelona, Berlin, Copenhagen, London, Medellin, Montreal, Seoul, Stockholm, and Toronto all contain emerging innovation districts. In the United States, the most iconic districts can be found in the downtowns and midtowns of Atlanta, Cambridge, Detroit, Philadelphia, Pittsburgh, and St. Louis. In each, advanced research universities, medical complexes, and clusters of tech and creative firms are sparking business expansion as well as residential and commercial growth.

Other innovation districts are developing in Boston, Brooklyn, Chicago, Portland, San Francisco, and Seattle. Former industrial and warehouse areas are undergoing a renaissance, powered by their enviable location along transit lines, proximity to downtowns and waterfronts, and recent additions of advanced institutions. (Note, for example, Carnegie Mellon University's decision to place its Integrative Media Program at the Brooklyn Navy Yard.)

Perhaps the greatest validation of this shift is the fact that traditional exurban science parks like Research Triangle Park in Raleigh-Durham are now responding with efforts to meet the new demand for more vibrant and collaborative work and living environments.

Innovation districts are already attracting an eclectic mix of firms in the app economy and high tech sector as well as in high-value, research-oriented sectors such as life and material sciences, clean energy, and data computing. They are also home to companies in highly creative fields like architecture, design, theater production, advertising, and marketing. We even see a return to cities of small-scale and customized manufacturing, made possible by 3D printing, robotics, and other advanced techniques.

Much of this activity reflects a fundamental rethinking by corporate management about how and where innovation happens. In turn, it is making the case that discrete urban geographies can be instrumental in strengthening the competitive advantages of specific firms and clusters.

Rather than being the outgrowth of heavy-handed government programs, innovation districts are instead emerging from broader trends and market forces. For example, an economy increasingly oriented toward innovation (particularly through open collaborations) naturally rewards urban density. Companies, researchers, and entrepreneurs working in close proximity are able to share ideas rather than invent in isolation. No one company can master all the knowledge it needs, so they rely on a

network of industry collaborators. A recent *New York Times* article on the growth of Pfizer, Novartis, and other major pharmaceutical companies in Cambridge, makes the point explicitly:

Pharmaceutical companies traditionally preferred suburban enclaves where they could protect their intellectual property in more secluded settings and meet their employees' needs. But in recent years, as the costs of drug development have soared and R&D pipelines slowed, pharmaceutical companies have looked elsewhere for innovation. Much of that novelty is now coming from biotechnology firms and major research universities like MIT and Harvard, just two subway stops away.

If the benefits of urban density were already being experienced, they take on heightened importance in what Michael Mandel has called the “age of convergence” –when companies must simultaneously push forward with technology and content. Other analysis by the Center for an Urban Future in New York City finds many tech players focusing less on building new technologies and more on “applying technology to traditional industries like advertising, media, fashion, finance, and health care.” These shifts reinforce the importance of proximate location as companies strive to be physically close to the individuals and companies they partner with.

The rise of a convergence and collaborative economy also raises questions of how commercial buildings—offices, research labs, business incubators, and innovation institutes—should be designed. Thus, the creative solutions being tried in vanguard innovation districts will yield broad lessons. With their many variations on incubator space, collaborative venues, social networking, product competitions, technical support, and mentoring, they are beginning to sort out the best physical and social platforms for entrepreneurial growth.

Finally, large-scale demographic migrations are putting new value on cities and demanding more and better choices in where workers live, work and play. The City Observatory recently found, for example, that the number of young college graduates living within three miles of city centers (i.e., where innovation districts tend to be located) has surged, up 37 percent since 2000. This is happening not just in talent magnets like Denver, Portland, OR, and San Diego, but also in older industrial cities like Buffalo, Cleveland, and Pittsburgh.

The confluence of these disruptive economic, social, and demographic dynamics has changed corporate calculus. As companies design forward-looking strategies, they should be asking whether and how a greater commitment to urban locales could help them squeeze out even more success.



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