When Real Estate Meets Innovation

The NYUSPS Schack Institute of Real Estate Urban Lab develops new understanding of the economic and real estate trends that are shaping our cities.

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Growing Innovation Economies

Innovation plays a critical role in the growth and economic development of cities. While major high-tech companies like Apple and Microsoft were once heavily concentrated in suburban office parks in the Silicon Valley, Seattle, Boston, and North Carolina Research Triangle, today they have returned in droves to cities and urban areas. Whereas New York had practically no venture capital-backed startups in the 1980s, it received $7.6 billion in venture capital investment in 2016 alone. That same year, San Francisco obtained an investment of $23.4 billion.

In the global race for technology and talent, many cities have endeavored to attract high-tech companies by building large-scale innovation districts like Boston's Seaport District or New York's Hudson Yards. And yet, even the most successful cities have not fully harnessed the use of technology in their development efforts. In major cities like New York, zoning laws and transportation, combined with high construction costs, pose numerous obstacles to expanding innovation across neighborhoods. Meanwhile, smaller cities struggle to accommodate high-tech startups, which often flock to areas with the widest and most diverse pools of talent.

The NYUSPS Schack Institute of Real Estate Urban Lab recently convened a panel of experts for a conversation on how to effectively integrate technology into urban real estate development. The following are five key insights from their discussion, aimed at cities looking to grow their innovation economies.

Expand access to high-speed networks.

High-speed networks are a necessity for any building or urban development project. "It's no longer a luxury for people to be connected through their phones and the internet," says Brian Platt, the Chief Innovation Officer for Jersey City. Without broadband, a development is unlikely to attract the kind of innovation and entrepreneurial talent that contributes to economic growth. Developments without high-speed networks also have a tendency to alienate tenants that cannot afford to pay a premium for connectivity.

Despite the advantages of broadband, there is a particular challenge to implementing it in New York City. Many industrial business zones in Brooklyn and Queens are considered "digital deserts," where only a limited number of commercial buildings have access to high-speed networks. The age and infrastructure of industrial buildings makes this problem

especially difficult—and expensive—to solve. Only by investing in broadband as a public utility can cities and urban developers help support local businesses and remain competitive in the digital age.

Many cities, including Austin, Atlanta, and Louisville, have already realized this strategy by investing in Google Fiber, a high-speed internet, TV, and phone service. In November, Louisville Mayor Greg Fischer wrote a column touting the benefits of this partnership. Thanks to the presence of Google Fiber, he wrote, "more skilled young professionals, who view fast internet speeds as a must, will consider Louisville as a new home." This young talent, he added, could soon make Louisville "more attractive to businesses in tech, engineering, healthcare and other growing sectors."

Improve opportunities for service and blue-collar workers.

While many city planners worry about the impact of innovation districts on affordability, others view it as an opportunity for more inclusive growth. In the case of Industry City—a 35-acre innovation ecosystem in Sunset Park—the development has spurred job creation across multiple neighborhoods in Southwest Brooklyn. In April 2016, Industry City unveiled The Innovation Lab, an employment center that provides job training and placement for local residents, including those in the industrial and manufacturing sectors. Today, the project is on track to create 20,000 new jobs by 2025.

Cities and developers can also upgrade existing service and blue-collar jobs by partnering with local community initiatives. In New York, for instance, a program called Coalition for Queens teaches coding and tech skills to low-income residents in order to prepare them for software engineering jobs. By engaging with these types of programs, developments like Industry City can elevate low-skill labor to innovative, high-tech professions.

According to Industry City's CEO, Andrew Kimball, the development is already "capturing folks who need access to jobs and have the highest barriers to obtaining them." On top of that, he adds, tenants are offering the kind of accessible work that once characterized these spaces in the 1950s. By providing meaningful opportunities for service and blue-collar workers, innovation districts can help solve the very divides with which they are often associated.

Engage the private sector.

While developers and innovation districts are key drivers of a city's high-tech economy, their success often depends on partnerships with local private institutions. "To attract the top talent, you need to engage the private sector," says Kate Bicknell, a Vice President at Forest City Ratner. Indeed, this is the very strategy behind one of Bicknell's largest development projects, the Cornell Tech Campus, located on New York's Roosevelt Island. By forming partnerships between private sector tech companies and nearby academic institutions like Cornell University and Technion-Israel Institute of Technology, the Cornell Tech Campus is on its way to jumpstarting New York's innovation economy.

Another private-public development garnering attention among urbanists is Waterfront Toronto, one of the largest waterfront revitalization efforts in the world. In October, Sidewalk Labs—Google's urban innovation organization—announced their plans to partner with the development to build a mixed-use neighborhood along the Eastern Waterfront. The project, entitled Sidewalk Toronto, will serve as a laboratory for numerous innovation strategies, including self-driving buses and mass-produced modular homes.

"The one thing that's brilliant about Waterfront Toronto is that they can operate at scale," says Bicknell. While New York City lacks the same spatial advantage, its budding innovation economy provides numerous opportunities to engage local tech companies in new development. According to Regina Myer, President of the Downtown Brooklyn Partnership, New York would be the "natural, best fit" for Amazon's new headquarters due to its transportation system and global connectivity.

Lead with a small business strategy.

Although many innovation districts have gained national or international prominence thanks to the arrival of major companies like General Electric or Time Inc., failure to engage local talent could prohibit growth and expansion down the line. When considering how to expand Industry City, for instance, Kimball says his strategy was simple: Invest in small businesses or scalable startups and provide them with amenities that support their growth. These amenities may come in the form of creative incubators and "maker spaces," which create common areas for employees and businesses to mingle and collaborate. Developments might also consider connecting companies with local hiring resources and job training programs in order to strengthen their talent base.

As an innovation district's small businesses continue to grow, larger tech companies are likely to follow. This has proven to be the case in Jersey City, which has recently positioned

itself as a testing ground for startups. In the last three years, the city has added nearly 40,000 technology jobs, giving it the highest concentration of tech workers in the New York metro region. At the same time, major companies like Forbes, Ernst & Young, and Omnicom have begun to flock to the area, driven by a rising share of talent.

The success of innovation districts further depends on the quality of the businesses that inhabit them. In order to promote local economic growth, cities and developers must identify industries that have been particularly successful at harnessing their own innovative capacities. Both Kimball and Myer agree, for instance, that healthcare businesses have become the backbone of New York's innovation economy. Indeed, healthcare practitioners currently make up the largest share of creative professionals in every one of the city's boroughs except Manhattan. As it stands, a number of New York-based healthcare startups like Oscar and Zocdoc are revolutionizing access to medicine both locally and across the country.

Prioritize real estate, access, and zoning.

By far one of the biggest hurdles to developing an innovation district is zoning. Cities that want to encourage new development must ensure that zoning regulations facilitate—rather than restrict—the spread of innovation. "Zoning is one of [New York City's] best tools," says Myer, adding that the key to reforming a city's zoning codes is to align them with modern technology. By allowing small businesses to easily learn regulations and research open zoning areas, cities can eliminate barriers to entry for startups and high-tech companies.

Another obstacle to innovation is the cost of construction in major cities like New York and San Francisco. Just as expensive construction often inhibits development, so too can innovation reduce costs and make space for new businesses. One way for developers to reduce spending is through modular construction—a process wherein a building is constructed off-site in nearly half the time. According to Bicknell, Forest City Ratner has "cracked the code" in terms of high-rise, modular construction in New York City—despite the setbacks it endured with its 32-story tower at the Brooklyn Navy Yard. "When you're the first to try something big, there are stumbling blocks along the way," Bicknell says. Still, she maintains that modular construction will be an effective means of cutting costs and accommodating startups in the future. "As more and more early-stage companies who live in Brooklyn want to stay in Brooklyn, they also need space to grow into," Bicknell says. This makes low-cost, innovative construction even more essential to a city's economic growth.

Yet another hurdle to encouraging innovation is transportation access. In many cases, even innovation districts—which span entire neighborhoods—are unable to spread their benefits to areas outside the urban core. "I'm ashamed of what access looks like outside The Farragut Houses," says Myer, referring to a public housing project in Downtown Brooklyn. Of particular concern, she adds, is the alignment of the Brooklyn Queens Expressway, which has isolated these homes from the Brooklyn Navy Yard. In addition to expanding existing transportation networks, cities must continue to invest in alternate forms of transportation, including safe bike lanes and driverless cars.

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The role of innovation in real estate is uncharted territory. As cities and developers experiment with new strategies for accommodating high-tech companies, they have also been forced to confront challenges of access and affordability. While the recipe for a successful innovation district depends on the strength and resources of a local economy, it also depends on a city's ability to engage local actors. "A smart city is a city that actually adapts and reacts using technology," says Platt. Indeed, by recognizing the needs of a local community and using technology to meet these needs, cities can transform into more innovative places to live, work, and create.

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