REPORT

THE RISE OF URBAN TECH: A PRELIMINARY ASSESSMENT

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creative class group

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Urban tech is one of the biggest and most important fields for venture capital-backed high-tech startups. As a sector, urban tech goes beyond smart cities, being comprised of emerging industries like ride-sharing, co-living, co-working, bikes and scooters, food delivery, real estate and property tech, and construction tech. According to our analysis, the urban tech sector attracts more venture capital funding than major high-tech fields like artificial intelligence, biotech and cryptocurrency.

Defining the Urban Tech Sector:

To get a handle on the scale and scope of the urban tech sector, my team used data from CB Insights on ventures that had both received investment during the period 2016-2018. We defined urban tech as encompassing six broad industry sectors: co-living and co-working; mobility; delivery; smart cities; construction tech; and real estate tech.

Size and Scale of the Urban Tech Sector:

Urban tech investment totaled more than $75 billion over the three-year period 2016-2018, representing roughly 17 percent of all global venture-capital investment. Between 2016 and 2017, urban-tech investment more than doubled—from less than $20 billion to $44 billion—as its share of global venture investment surged from 13 percent to 22 percent. Urban tech is a large sector for venture capital investment, attracting considerably more funding than pharma and biotech ($16 billion in 2017) or artificial intelligence ($12 billion in 2017).

Urban Tech Investment, 2016-2018

Year	Urban Tech Investment	Total Global VC Investment
2018 (to date)	$13.9 billion (11.3%)	$123.1 billion
2017	$44.1 billion (22.8%)	$192.7 billion
2016	$18.8 billion (13.2%)	$140.6 billion
Total	**$76.8 billion (16.8%)**	**$456.4 billion**

The next table breaks down the leading industries which comprise urban tech. The largest of these is ride-hailing, which attracted more than $40 billion in venture investment between 2016 and 2018—more than 60 percent of all urban tech investment, followed by food delivery, co-living and co-working, bikes and scooters, and then smart cities.

Leading Urban Tech Sectors, 2016-2018

Sector	VC investment (billions)	Share of investment	Number of startups	Share of startups
Ride-hailing	$46.8	61.0%	258	19.2%
Food delivery	$14.6	19.0%	410	30.6%
Co-living & co-working	$6.4	8.3%	109	8.1%
Bikes and scooters	$6.4	8.3%	102	7.6%
Smart cities	$5.6	7.3%	154	11.5%
Real estate tech	$3.2	4.2%	117	8.7%
Construction technology	$2.5	3.2%	192	14.3%
Total	**$76.8**		**1342**	

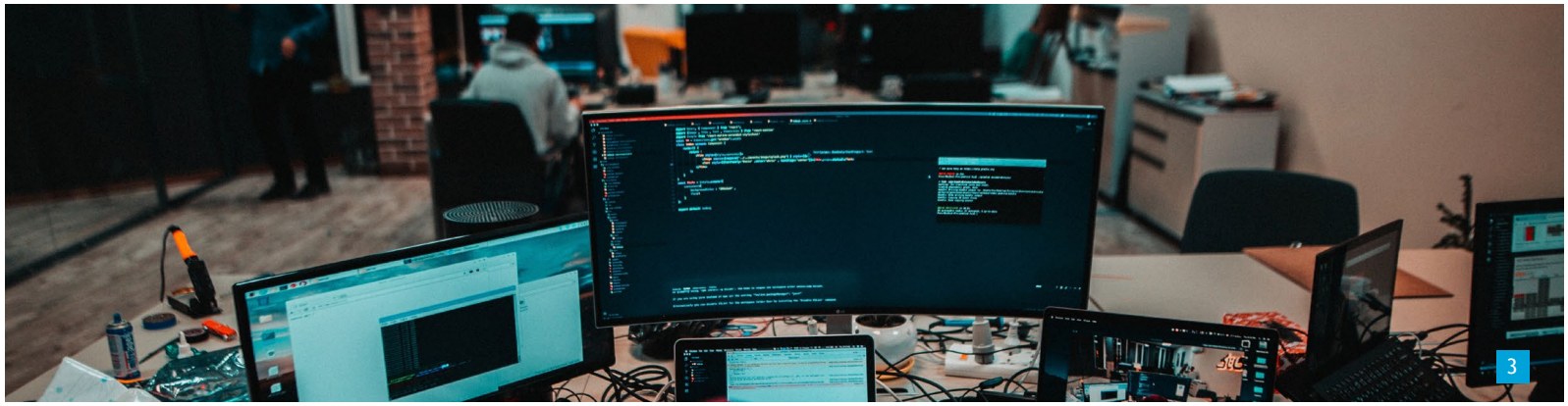
Some of the most important tech companies of the past decade operate in the urban tech space. Uber and Airbnb are probably the best-known. They are two of the select companies that tech industry analyst Scott Galloway believes may be able to join or compete with the "Big Four" at the upper reaches of the tech stratosphere: Apple, Amazon, Alphabet, and Facebook. Uber, along with Lyft, has defined the huge space of urban mobility, which now includes a raft of other companies, including numerous bike- and scooter-sharing startups, such as Lime and Bird. Katerra has emerged as the leader in construction tech.

Urban tech startups are some of the very largest venture-capital investments. Uber has attracted some $16 billion in venture capital, and Lyft, Airbnb, and WeWork have drawn between $4 and $5 billion each. Compare this to Twitter, the fantastically popular social media company, which secured $1.5 billion in venture capital funding.

A number of companies are explicitly addressing the urban tech space, and in some cases are attempting to integrate separate technologies across it. Perhaps the best known of these is Sidewalk Labs. Y Combinator, the very successful Silicon Valley accelerator created by venture capitalist Paul Graham, has also developed an interest in cities and urbanism with its New Cities program. UrbanUS is a fund that supports urban tech startups and is a partner of the accelerator URBAN-X. And the private-equity investor Jeff Vinik has created an urban-tech vertical at his venture-capital investment arm, Dreamit Ventures. WeWork which dominates the co-working space and has emerged as one of the most powerful real estate companies in the world, also plans to develop cities.

Largest Urban Tech Startups by Overall Investment, 2016-2018

Startup	VC investment (billions)	Type of company
Didi Chuxing	$18.1	Chinese ride-hailing platform
Uber	$16.4	U.S. ride-hailing platform
Grab	$5.1	Southeast Asian ride-hailing platform
Lyft	$4.8	U.S. ride-hailing platform
WeWork	$4.5	Co-working space provider
Olacabs	$3.8	Indian cab-hailing and car rental
Ele.me	$3.3	Chinese food-ordering platform
Ofo	$2.2	Chinese bike-sharing platform
Mobike	$2.0	Chinese bike-sharing platform
Delivery Hero	$1.8	Global food-ordering platform
Homelink	$1.7	Chinese real estate platform
Hellobike	$1.5	Chinese bike-sharing platform
UCAR Group	$1.4	Chinese ride-hailing mobile app
Katerra	$1.2	Construction software and analytics
Fair.com	$1.1	Car financing application
Instacart	$1.0	U.S. grocery-delivery platform



Leading Urban Tech Nations:

The United States once dominated venture capital financed startups. Its global share of venture capital investment was more than 95 percent back in the mid-to-late 1990s before declining to half by 2018. The US share of urban tech investment is even lower, roughly 45 percent of all investment in this sector. China is not so far behind with roughly a third of venture investment in urban tech (although China has far fewer urban-tech startups than the U.S., 200 versus nearly 800).

The next tier is comprised of Singapore in third, with $4.5 billion, almost 6 percent of investment and by India with $3.3 billion or 4 percent.

A third tier is made up of the United Kingdom with $1.6 billion and Germany with $1.5 billion or roughly 2 percent each. South Korea, the United Arab Emirates, France, the Netherlands and Canada round out the top 10 with about half a percent each. Canada ranks tenth in urban tech, with $455 million in investment, and it ranks sixth in terms of venture capital deals with 55 or roughly 3 percent of the global total.

Leading Nations for Urban Tech, 2016-2018

Country	VC Investment (millions)	Share of Global VC Investment
United States	$34,890	45.4%
China	$26,050	33.9%
Singapore	$4,521	5.9%
India	$3,350	4.4%
Germany	$1,620	2.1%
United Kingdom	$1,518	2.0%
South Korea	$732	1.0%
United Arab Emirates	$521	0.7%
France	$500	0.7%
Netherlands	$493	0.6%
Canada	$455	0.6%

Leading Global Cities for Urban Tech:

The San Francisco Bay Area tops the list with $23 billion or roughly 30 percent of all global venture capital investment in urban tech. Beijing follows close behind with $20 billion or 26 percent of funding. These two cities comprise the first tier with more than half of global urban tech investment.

The second is comprised of New York with $7.7 billion or 10 percent of investment, and Shanghai with $5.2 billion or nearly 7 percent. It's worth noting that San Francisco and New York have produced far more urban-tech startups than Shanghai and Beijing.

The third tier is made up of Singapore with $4.5 billion or 6 percent, and Bangalore with $3 billion or 4 percent.

The fourth tier is comprised of Los Angeles $1.8 billion or 2.3 percent, Berlin with $1.5 billion or 2 percent, and London with $1.3 billion or 1.7 percent.

Leading Global Cities for Urban Tech, 2016-2018

City	VC Investment (Millions)	Share of Global VC Investment
San Francisco	$23,086	30.1%
Beijing	$19,902	25.9%
New York	$7,725	10.1%
Shanghai	$5,232	6.8%
Singapore	$4,521	5.9%
Bangalore	$3,078	4.0%
Los Angeles	$1,773	2.3%
Berlin	$1,528	2.0%
London	$1,315	1.7%
Seoul	$673	0.9%
Chicago	$611	0.8%
Dubai	$522	0.7%
Amsterdam	$381	0.5%
Madrid	$369	0.5%
Paris	$322	0.4%
Boston	$309	0.4%
Toronto	$301	0.4%
Taipei	$300	0.4%
Tel Aviv	$236	0.3%
Seattle	$218	0.3%

Because it is a platform sector which will drive the competitiveness and innovativeness of nations and cities, the places which achieve leadership or dominance in urban tech will gain a broad based competitive advantage.

Key Success Factors for Urban Tech:

Based on our assessment of the sector, as well as the historical record and performance of previous leading-edge, high-tech sectors for nations and cities, the keys to success in the urban tech sector likely entail having a combination of the following attributes:

- Leading edge university research capability in this sector and also in computer science and artificial intelligence broadly,
- A world-class talent base in fields related to the sector and also in computer science and artificial intelligence broadly,
- Openness to talent attraction and retention from global sources,
- A leading-edge end-user community, especially in the real estate and construction sectors,
- A strong anchor company or companies which can fuel the sector and drive technology development, overall growth, employment opportunities, spinoff companies, and venture financing opportunities

Urban Tech in the Long View:

The rise of urban tech reflects the growing role of cities and urbanism in the global economy. Cities have become the basic platforms for global innovation and economic growth, supplanting the corporation as the fundamental organizing unit of the contemporary economy. But in this regard, cities remain terribly inefficient. They are indeed the last great frontier of inefficiency in capitalism.

A century or so ago, agriculture underwent a transformation. In 1900, more than half of U.S. workers worked in agriculture. Today, after huge leaps in agricultural technology and management, less than 1 percent of the workforce does. Farms have become incredibly efficient enterprises, with advanced technology and self-driving tractors.

Likewise, in 1950, more than half of the workforce of the advanced nations labored in manufacturing. Now only about 5 or 6 percent of the workforce is engaged in a direct production occupation. Factories are highly automated, managed on the principles of lean production, and can run 24-7 with little waste.

Contrast that to cities, where offices and homes sit vacant much of the time, where cars sit idle, and where congestion is rampant.

Urban tech is bound up with a third great economic transformation, the shift to a knowledge economy that is centered in cities and dense urban environments. Just as farms and factories of previous epochs were optimized for efficiency, the offices, apartments, cars, and other elements of cities that sit unused much of the time will be adapted for greater productivity.

Note: This is a preliminary assessment of the urban tech sector. We are refining and revising our definition of the sector and hope to update these figures and report sometime in early 2020.

About the Author:

Richard Florida is University Professor in the University of Toronto's School of Cities and Rotman School of Management and a Distinguished Fellow at NYU and Florida International University. He is founder of the Creative Class Group.

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