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# Maturing ecosystem:

## High-profile events and increased venture capital are among the makers of growth in Miami-Dade's tech hub

In 2015, Miami-Dade County saw much progress in its quest to become an international tech hub. The year saw numerous international tech events accompany the launch of a plethora of startups, especially those focused on health care technology and innovation. This development stems from Miami-Dade's longstanding and ever-expanding system of health care institutions, research universities and hospitals and medical centers. Relocations from major players and the launch of new regional branches were seen are a result of the business-friendly atmosphere in the county and the state. Adding to this atmosphere, local support for startups can be seen in the continuing proliferation of co-working spaces, as well as the increase of tech training programs. Public sector support can make or break entrepreneurial activities, and Miami-Dade has proven this by establishing a close and successful rapport with the tech industry.

### ■ Flourishing startups

In August 2015, Miami was ranked second among U.S. metropolitan areas for startup activity by the Kauffman Foundation, a national nonprofit that focuses on research in education as well as entrepreneurship. The Kauffman ranking is based on startup density, the rate of entrepreneurship and opportunity share—a metric showing the percentage of entrepreneurs starting a business out of opportunity rather than necessity. A strong startup scene is indicative of Miami-Dade County's continuing evolution into a tech hub and its supportive business atmosphere.

Another indication of this growth is the attention a number of Miami-based startups are receiving. Prominently featured at the Emerging Technologies and Business Showcase was Miami Beach startup Videoo, a company which offers software-as-a-service technology that pulls videos from various social media sites and presents them together as a way to better reach viewers. Videoo's customers already include the Huffington Post, A&E, the Bob Marley Family, Fusion and Mitu Network. Another Miami-based social startup is Yodel, formerly called Tracks, an app that uses visuals to make texting more like face-to-face communication. Yodel won Reader's Choice Startup of the Year and LiveAnswer won Best Pitch at the grand opening of Miami Beach's 40,000-square-foot co-working space WeWork. LiveAnswer is a subscription and cloud-based answering service that connects calls between 25,000 agents.

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TECHNOLOGY & INNOVATION OVERVIEW

Although the average exit time for startups is eight to 10 years, many startups in Miami have seen quick milestone successes. Organizations like Endeavor Miami have contributed to startup growth and success by mentoring entrepreneurs, helping startups to accelerate their path toward those milestones. For instance, the Miami-Dade Entrepreneurial Development Organization has united funding from institutions such as the Miami Downtown Development Authority (DDA) and the Miami-based Knight Foundation, which is giving $210,000 to expand Venture Hive, a business accelerator. Venture Hive provides public programming on investing and entrepreneurship, as well as grants, free office space and a 13-week mentoring course. For its own part, the DDA provides fiscal incentives in downtown's Enterprise Zone and is also soliciting proposals from experienced IT firms to work in various IT management services. DDA is also providing property improvement grants and business development loans to local businesses.

Tech-based education is also seeing growth in Miami-Dade. For example, the coding school Ironhack opened in fall 2014. Ironhack not only offers its students eight-week coding courses but also encourages students to use their new skills by hosting a competition called Hackshow. Ironhack has firmly established itself in the tech scene; leaders from Ironhack were also on the panel for the pitch competition at Startup Weekend—where organizers boasted a business could be launched in 54 hours—held at Florida International University (FIU) in November 2015. Joining the mobile app scene in 2015 was Miami-Dade County's Community on Patrol Application (COPA), announced by Miami-Dade County Mayor Carlos Gimenez at eMerge Americas. Developed by the county's information technology department, the Miami-Dade County Police Department, Microsoft and ZCO Corporation, the app will allow 2.6 million residents to report criminal or suspicious activity by submitting tips, videos and photos. Users will also be able to file police reports and commend police officers.

South Florida saw the highest venture capital activity in 2015 than in most of the last 20 years: firms invested $75 million in deals during the third quarter of 2015. Total funds investing are down slightly from 2014, but the deals are bigger, with health care becoming one of the biggest recipients of venture capital. Miami-Dade's deals included Yellow Pepper raising $19 million, Brickell Biotech, $7.3 million and Vigilant BioSciences, $5 million. The growth in venture capital firms, paired with the rise of startup supporters, is boosting the Miami tech industry.

## Xavier **Gonzalez**
*CEO,*
*eMerge Americas*

Miami is becoming the technology hub of the Americas, and eMerge Americas plays a critical role as the pre-eminent B2B technology event of the Americas. eMerge Americas was established three years ago to catalyze the development of a tech ecosystem and encourage connections between the world's most important technology companies and top decision makers from Latin America. Building on the foundation of the investments we have attracted and the name recognition we've established in South Florida and Latin America, we are becoming the premier platform for the advancement of technology, a launchpad for innovation and an idea exchange.

One of the drivers of our success is the summits under the eMerge umbrella. One of these is WIT (Women In Technology), inaugurated in 2015. Over 6,000 people attended the 2014 conference, 17 percent of whom were women. In 2015, we had over 10,000 attendees—over 33 percent women—and we attribute this increase to the success of WIT.

Another successful addition has been the eGov—Government Innovation Summit. eGov is crucial to world governments looking for ways to address issues affecting their constituents like transit. Meanwhile, the private sector, whether emerging startups or multinational corporations like Cisco, IBM and HP, is developing disruptive technologies and seeking to launch public-private partnerships. eGov brings these two groups together, allowing them to strategically connect.

The eMerge Americas Startup Showcase has featured the most innovative startup companies from Latin America, North America, Europe and Israel, with hundreds of investors connecting with the top entrepreneurs leading these companies. The connections between these innovators and strategic investors resulted in significant investments for many of the participants.

With partnerships with organizations like NBCUniversal, eMerge Americas has established itself as the Americas' must-attend technology event. This success has helped Greater Miami and Latin America's tech ecosystems grow slowly but surely.

Scout Ventures made its first investment in a Miami startup in January 2015 in LiveNinja, which provides video chat services. Additionally, closing out 2015, 500 Startups launched a 10-week growth marketing program called Miami Distro Program, bringing mentors from Latin America and Silicon Valley to help startups with scaling customer acquisition, retention and revenue. The program partners with the Knight Foundation, the Simkins Family Foundation, Softlayer and Building.co.

■ **World-class events**
Miami-Dade County hosted numerous tech events in 2015, the largest of which was eMerge Americas, hosting more than 10,000 people from 500 companies and 50 countries—almost double its 2014 attendance. Partnering for the first time with NBCUniversal News Group, the conference held demonstrations of surgical robots and entertainment systems, and speakers emphasized the importance of developing and preserving local talent. The winner of the startup competition was VSNMobile, a developer of 360-degree photo technology, which received a $100,000 investment from the judges. eMerge also featured a Women In Technology (WIT) speaker track as well as a speech by Deepak Chopra.

Meanwhile, Miami Dade College (MDC) hosted its inaugural Black Tech Week during Black History Month, highlighting the need for diversity in the tech industry. Roy Clay Sr., one of the developers of HP's first computer in the 1960s, spoke at the event, along with innovators from Google, Snapchat and Coca-Cola. Panel discussions on diversity were led by PartPic CEO Jewel Burks, a Google employee who described her experiences with sexism and highlighted the fact that less than 5 percent of Silicon Valley technologists are black. The event also illuminated business opportunities in Africa, Cuba and Jamaica.

Miami-Dade County also hosts longer-running and established tech events. It was home to the 18th annual Emerging Technologies and Business Showcase, held in November and hosted by Space Florida, Enterprise Development Corporation of South Florida and Florida Venture Forum. At the showcase, 24 Florida startups competed for $150,000 in prizes. Rounding out 2015 in tech events was Miami Techweek, a week-long festival where startups pitched ideas to judges, through several events and competitions such as Hatch Match, an evening of networking speed dating. Additionally, the third annual Sime MIA brought a unique international event (with a sister conference in Europe) intersecting tech, art and media and focused on tech and media trends as well as financial tech. Collectively, these events connected local startups with investors, offered training opportunities and exposed Miami to international corporations.

■ **Higher education initiatives**
Investments in higher education are imperative to providing a pipeline for an evolving tech industry. Consequentially, MDC has a new digital marketing training program: MarketHack, launched in August 2015 by MDC's The Idea Center. Sponsored by the Knight Foundation, the 16-week course was taught by online marketing experts from Open English and Offercraft and has already launched its second edition. The program aims to fill a void in digital marketing expertise in Miami-Dade, where demand for this education is high, providing not only connections but also apprenticeships and internships. The Idea Center, which recently partnered with the Entrepreneurs' Organization South Florida, hosted an innovation course during which students created solutions and prototypes to solve common problems. MDC also hosted the Goldman Sachs 10,000 Small Business program, a 13-week business development program.

FIU opened the College of Architecture and the Arts Innovation Lab in September 2015. The lab features a 3D printing and laser-cutting lab, sponsored by the Knight Foundation and MakerBot, a global player in the 3D printing industry. FIU is the first university in the U.S. with a focus on design in the arts to house a MakerBot Innovation Center. In 2015, FIU also opened its $3-million Tech Station, an 8,000-square-foot building at the College of Engineering and Computing. Tech Station features prototypes such as RoboCop, a device that would allow disabled policy and military officers to patrol remotely. Next on the horizon for FIU is Startup FIU, a one-stop shop for students with startup ideas, similar to MDC's Idea Center.

> **"The FIU lab features a 3D printing and laser-cutting lab, sponsored by the Knight Foundation, and MakerBot, a global player in the 3D printing industry."**

Many tech-related scholarships have been awarded in 2015. As more are distributed, they will draw more talent to the area, strengthen universities' programs and fortify the area's tech talent pipeline. MDC received almost $13 million in federal grants for STEM initiatives, while two students in the Health Information Technology program were chosen from the Siemens Technical Scholars Program. Coding bootcamp Wyncode Academy received $75,000 from the Knight Foundation for scholarships for low-income students. Furthermore, a partnership was formed between contact service software provider Fenero and nonprofit enterprise Lighthouse Works, which provides job training and employment for the visually impaired.

### ■ A supportive ecosystem

Support for technology and innovation in Miami-Dade County is not only evident in universities. The largest contributor to these activities has been the Knight Foundation, which made 164 investments totaling $16 million in the last three years. One such initiative is Venture for America, which matches bright college graduates from across the U.S. with Miami-area startups. Some of these jobs could be housed in the upcoming Cambridge Innovation Center, which chose University of Miami's (UM) Life Science and Technology Park as its second U.S. location outside of Cambridge, Massachusetts. The center will house 500 startups in up to 120,000 square feet and is expected to be completed by fall 2016. As of October 2015, 98 percent of the first phase is already leased. UM is doing more than providing the acreage, however, as its supervised law students will give startups free legal advice about business entities, financing, patents and trademarks, corporate organization and human resources.

On the other hand, the development of the Miami Innovation District has faced opposition by the city, mostly related to its proposed Miami Innovation Tower and its 633 feet of LED billboard space. This observation tower is the landmark of the proposed 7.4 million-square-foot business district, supported by the Knight Foundation and big players such as High-Ridge Global and 500 Startups—companies who have a presence in Miami. Miami Innovation District Developer Michael Simkins spent $120 million on 10 acres near downtown for the project to attract companies such as Google and Yahoo, creating another Silicon Valley in support of the popular cluster innovation mentality. As Simkins tells Invest: Miami, the Innovation District's design will create a transit hub that will attract urban millennial workers. "The architect working on the Miami Innovation District has

**Nabyl Charania**
*Co-Founder & CEO,*
Rokk3r Labs

The lack of professionalized or institutional investment has been an issue for this market and affects companies needing to access growth capital. A startup can raise the initial $200,000 to $2 million from angel investors, but getting to that next phase is more difficult. Recognizing these challenges, Rokk3r Labs launched Cross Valley Capital, a $20-million venture fund, to back emerging fund managers at Iterative Instinct, another $20-million early-stage fund. But it's not just us: established funds like Accelerate Ventures, Scout Ventures and Mosley are realizing that a lot of good ideas are coming out of Miami.

South Florida has no shortage of wealth, but most investors do not know how to valuate tech investments. Many investors come here for the real estate, but once here, are open to other opportunities. However, unlike real estate, which is a tangible product, investors unfamiliar with tech need to be guided through the valuation of a tech investment. Everyone talks about exponential technologies and understands we are living in a special moment. The next step is to help a would-be investor understand the power of these technologies—to walk them through where we are and how far we have come in a few years.

Take drones. Eight years ago, you could not buy a drone. Six years ago, they were prohibitively expensive. Today, you can buy one for $30 and use it for your business. Communicating the potential of these technologies is crucial—someone may have made a lot of money on real estate, but where is the money to be made in the future? Opportunities lie at the intersection of exponential technologies. Seizing those opportunities requires, not just a certain knowledge base, but also a sense of imagination.

Building an ecosystem is a long-term project. We need support from public and private sector alike in innovation and entrepreneurship to develop the skillsets people need to become employable. We need to come up with a cohesive way for foundations, like the Knight Foundation, and government entities to become part of the framework as opposed to being the people you go to for money.

South Florida health care companies received $176.8 million in venture capital from January to November 2015.

worked on the headquarters of Google and Uber, and we have spent thousands of hours with them working on how to bring about the most collisions, the most interactions," Simkins said. "Once we have the anchor tech tenant, there are many smaller companies who will be excited to move into the area."

### ■ Innovations in health care

The health care industry continued to drive Miami-Dade's tech industry forward as 2015 was another explosive year for technology and innovation in the health sector. Numerous national accolades were awarded to several Miami-Dade-based health care organizations such as the Building a Healthy and Resilient Liberty City project, a collaboration between Florida Institute for Health Innovation, the Miami Children's Initiative, Catalyst Miami, the Florida Department of Health in Miami-Dade County and the Jackson Health System. The project received a $75,000 grant from the BUILD Health Challenge to improve health in Liberty City, a Miami neighborhood with high crime rates. Each partner focuses on different tasks such as leadership training for parents and residents to lower poor health outcomes such as stroke, depression, anxiety and physical, substance and sexual abuse. The initiative will examine the connection between violence and health through the integration of law enforcement and public health data analysis.

Receiving the National Healthcare Innovation Award was UM's Expanding Activities of School Health Initiative. Partnering with Medicaid, the University of Florida College of Dentistry, the Center for Haitian Studies, the Larkin Residency program and Overtown Youth Center, the program has received $4 million in funding with an estimated three-year savings of over $5.6 million. The program focuses on expanding care services, engaging school-health stakeholders and enhancing the use of health information technology to combat asthma, obesity, Type 2 diabetes and sexually transmitted diseases in children in four Miami-Dade communities.

2015 was an economically healthy year for Miami-Dade health care. The Miami Herald reported the average salary in the county's life sciences industry

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based Bird Biotech America is bringing its U.S. headquarters to UM's Life Science and Technology Park, which will create 10 full-time positions.

More state-of-the-art research and care facilities have recently opened or on the horizon for 2016. In 2015, UM opened a sterile clean room for cutting-edge nanotechnology research, the first nanofabrication facility in South Florida and the result of a $7.5-million grant from the Dr. John T. Macdonald Foundation. 2016 will witness of the completion of the Miami Cancer Institute at Baptist Health South Florida, with nearly 400,000 square feet of clinical and research space costing $430 million. The facility will be the first in Florida to offer proton therapy, the use of proton beams to precisely attack cancer tissue. This institute will also provide people from Latin America and the Caribbean access to proton therapy. Additionally, in 2016, the Global Virus Network, representing centers in more than 25 countries, will draw virology experts from around the world to build a world-class HIV/AIDS institute at the UM Miller School of Medicine.

### ■ Looking ahead

Overall, 2015 saw huge gains in capital and collaborative building spaces being leased faster than they can be built, numerous international events and local support for more investment in the regional tech hub. Health care entrepreneur and investor Samuel Reich told the Miami Herald that while Miami-Dade boasts strong research universities and institutions, it still needs stronger financial and human capital. Startups, especially those related to health care, are not without challenges since funding is hard to secure, as the state receives less than 1 percent of the nation's venture capital.

On the horizon for 2016 in technology and innovation is the rise of the digital media industry, including the video game industry and the film production industry. MDC's new animation studio, Miami Animation and Gaming International Complex (MAGIC), opened in late 2015—a 9,000-square-foot facility offering degrees in animation and game art as well as game development and design. These programs aim to fill 1,500 available jobs that are 85 percent filled by out-of-staters and startups like Shiver Entertainment, a digital gaming startup that created 60 jobs in the last two years, according to Miami Today. Furthermore, Viacom International Studios, which has operated its Latin American, U.S.-Hispanic and Canadian markets from Miami, is building an 88,000-square-foot two-stage production studio in the downtown area. However, further development may heavily rely on the reinstatement of certain tax incentives. ■

is nearly $80,000 whereas the average wage for the county is just over $44,000. Florida's biotech industry has grown 92 percent (based on the number of companies) since 2008, more than double the U.S. average. Further, $176.8 million of venture capital was invested in South Florida health care and life science companies from January to November 2015.

Many health technology startups entered the scene in 2015 such as Neocis, which is creating a robot a dental surgeon can use to insert dental implants while reducing surgery time and increasing accuracy while being minimally invasive. The surgeon can pre-plan the surgery in the software but make real-time adjustments. Biscayne Pharmaceuticals merged with Insero Health, uniting the companies' two areas of expertise: cancer and epilepsy. 2015 also saw the launch of FIGS, a startup that makes fashionable yet functional scrubs made of anti-microbial material for health care professionals. The startup also has a humanitarian component: it has donated about 75,000 sets of scrubs in 26 countries, reducing infection transmission rates by 66 percent. Furthermore, Spain-