Executive Summary-Las Vegas

Entrepreneurial Communities LLC. assessed the Las Vegas ecosystem during the winter of 2022-23. Las Vegas economic and community data were aggregated and benchmarked against the entrepreneur ecosystems in five major U.S. cities, including Boston, Denver, Portland, Nashville, and Tucson. Stakeholder interviews and roundtables were hosted in January and February 2023. A nine-person national roundtable of entrepreneurship researchers and practitioners was convened in February 2023 to provide insight and recommendations for this report.

Entrepreneurial ecosystems require many contributors. At the heart of any ecosystem are the entrepreneurs who start and grow companies. Forward visioning regional leadership, responsive public policy, and infrastructure supporting workforce, capital and quality of life are all critical. This assessment finds that Las Vegas is a vibrant multi-faceted city, with resources in all of these areas, lacking only a collaboratively driven vision and strategy to ignite a world-class innovation driven economy.

Convene the Ecosystem Champions

In Las Vegas, the number of founders and their companies are growing, and capital is beginning to flow into the region. Across the city, dozens of organizations are working to deliver policy, programs and other connecting resources in support of entrepreneurship, especially at the City of Las Vegas, UNLV and among a few entrepreneur support organizations. These entities, however, are working independently in silos, without significant collaboration. Other important organizations have not been active in these efforts, with needed leadership absent. This report recommends an Innovation Summit in 2023 to lay out a vision for the region as a critical first step toward broad-based regional collaboration.

With a unified vision, Las Vegas will be able to deliver a powerful message to the state legislature and NSHE in support of aligning the state's economic development strategies more equitably toward the needs of the innovation economy. In Nevada, this could include expanding the Knowledge Fund, a renewed focus upon technology transfer, more public private partnerships to build novel programs and the creation of an Office of Entrepreneurship as outlined in the state section of this report.

Ignite the Entrepreneurial Hubs

This report recommends that Las Vegas dedicate resources and energy around three place-based hubs, including the smart-tech hub downtown, an immersive tech hub in the Arts District and the emerging commercialization hub at Black Fire Innovation Center. These three hubs currently engage more than 1,200 regional startups and could become internationally attractive to key innovation economy sectors through concentrated public and private sector investment.

Smart Tech Hub Downtown

Las Vegas has a unique opportunity to expand the City's Smart City Innovation district from a section of the downtown core into a collaboratively driven, one-of-a-kind, city-wide public lab supported by highly specialized accelerators, studios, and capital. The city currently hosts a Smart City Innovation District: an innovative public testing district where some entrepreneurs are invited to beta minimum viable products (MVPs) and software performance utilizing public, downtown infrastructure. To date, the city has partnered with entrepreneurs across multiple sectors, including self-driving shuttles, IoT-based public park safety software, and a novel technology that facilitates two-way communications between drivers, walkers, and bikers on city streets. No other city offers this kind of field-testing access to innovators. Cities are projected to spend an estimated \$327 billion on smart tech in coming years and the field has market potential of \$2.46 trillion by 2025. An expansion of the district, supported by key partnering organizations

providing industry specific capital, programs and testing resources, such as facilitated access to SBIR and STTR for example, will ignite this hub as a globally relevant resource for smart tech innovation.

Immersive Technology Hub in the Art District

Tony Hsieh's internationally acclaimed Las Vegas Downtown Project was tied to place-making. He envisioned a vibrant arts, retail and entertainment district offering creative collisions for technology entrepreneurs to incubate, innovate and grow. The Arts District today offers the same potential, even more so in many ways, but new energy and broad-based leadership is needed.

This report recommends building resources and community around immersive tech in the Arts District. These industries, including augmented reality (AR) and virtual reality (VR) are well aligned with the creative ethos of the Arts District tenants and the market for immersive tech is expected to exceed \$95 billion by 2025. Multiple AR/VR innovators are housed in the new International Innovation Center@ Vegas II. The district is flanked by the 90-acre Area15 which features cutting edge immersive entertainment, and the casinos are experimenting with a wide array of immersive technologies on the Strip. Next steps should include convening a broad-based consortium of innovators, Las Vegas Strip leaders and investors to evaluate the feasibility of reinvigorating the Downtown Project as a muti-faceted AV/VR hub supporting immersive technologies.

Commercialization Hub at Black Fire

The Black Fire Innovation Center at UNLV should be tapped as a super hub; a gateway for connecting high growth global innovators with facilities, resources, and capital across industry in Southern Nevada. Over time, this facility should build capacity to serve as the statewide gateway for Nevada's technology transfer licensing opportunities. This hub will drive innovation toward the top of the stack by promoting commercialization and licensing of UNLV and DRI intellectual property, support SBIR and STTR applications in emerging industries, foster dense connections between faculty researchers and the startup community, and build out specialty programming and capital serving the gaming, health tech and sport innovation industries.

Workforce Diversification through Entrepreneurship

Workforce diversification remains a critical barrier to entrepreneurship and economic development. Currently, Las Vegas entrepreneurs are contributing 4.1% of employment in the region and creating 4.68 more jobs than they shed during their first year of business. Measured against benchmarked cities, Las Vegas performs well in these indicators, but could do much more. Ramping up talent attraction strategies for example, will deepen the pool of technology employment from 1.7% of the workforce to rival that of other successful ecosystems worldwide. At the other end of the entrepreneurial stack, leveling up the capacity of Las Vegas's 75,000 small businesses with fewer than ten employees to engage in the online economy is an important, but often overlooked opportunity for Nevadans to gain entrepreneurial experience, diversify the workforce and generate wealth among disadvantaged populations. It will require collaboration across organizations to build, fund and execute such programs.

Las Vegas is an amazing city with an iconic place-based global brand, rising entrepreneurial activity across innovation economy sectors, and an international community of entrepreneurs and investors poised to coalesce around big ideas. The Las Vegas of the future will be created by a new generation of ecosystem builders across the public and private sectors who are ready to give life to the City's new slogan "What Happens Here, Only Happens Here."

The Las Vegas Ecosystem

Overview

The success story that is Nevada's entertainment industry has been a compelling part of American vernacular throughout the 20th century. Fueled by supportive state laws that date to the state's founding and subsequent post-Depression legislation in the '40s, Nevada has a long history of support for gambling.

Nevada finished 2022 with more than \$14.8 billion in gaming revenue. The Las Vegas Strip accounted for \$8.2 billion of those funds. There is no argument that this industry drives the Las Vegas economy. During the past two decades, however, the state has been rocked by the boom-bust cycles stemming from the Great Recession in 2008 and, more recently, the pandemic. It is widely agreed that reliance on tourism and gaming should be augmented and diversified to soften these increasingly complex disruptions.

The opportunities in Las Vegas extend beyond diversification. The city's entertainment scene, year-round outdoor recreation, international culture, and intimate ties to capital and talent in the Silicon Valley position Las Vegas as an explosive hub in the innovation economy.

If a sole entrepreneur's vision could single-handedly create an ecosystem, Las Vegas would have become a global leader in the innovation economy a decade ago. One of the most nationally cited ecosystem case studies originated in Las Vegas between 2010 and 2015, when Zappos founder Tony Hsieh moved his corporate offices from San Francisco to downtown Las Vegas. Hsieh turned the former Las Vegas city hall into the Zappos headquarters then launched a \$350-million initiative called the Downtown Project, designed to transform downtown Las Vegas into a global entrepreneurship hub.



Hsieh bought a block of condominiums called the Ogden and offered shared space to startups and visitors. He invested in dozens of startups and championed hundreds more through events and meetups. He created the Downtown Container Park, a shipping container reuse project supporting retail, a green space, and a concert venue, fronted by a two-story flame-throwing praying mantis sculpture from Burning Man. By the mid-2010s, a <u>report</u> from Applied Analysis suggested that the Downtown Project had generated nearly \$120M in annual economic output and helped create more than 1,000 jobs in Las Vegas.

The Las Vegas Downtown Project faltered when Hsieh stepped down in 2015. No other partners from either the public or entrepreneurial sector were poised to take a leadership role, and the project's big vision faded with Hsieh's death in 2020. Many entrepreneurs in the city, however, credit Hsieh with planting seeds. After a pandemic-induced lull, the Las Vegas ecosystem has rushed back with record numbers of new companies.

In the 2022 fiscal year, the City of Las Vegas approved 3,850 new business licenses, a 10.6% increase from the 3,481 licenses in 2021.

Nevada ranked 10th in the country for federal employment identification number (FEIN) applications in 2022, with 5.6 applications per capita. This is a 28.2% increase over 2019 startup levels in the state. These potential startups are particularly important because they represent the businesses most likely to lead <u>lasting job growth</u> and innovation. According to the <u>Economic Innovation Group</u> (EIG), this trend may be the beginning of a long arc of resurgence in entrepreneurial activity nationwide, led by states like Nevada. The City of Las Vegas approved 3,850 new business licenses in FY 2022, up 10.6% over 2021.



Las Vegas MSA Business Starts and Exits (Churn) 2004-2021

Source: Business Dynamics Research Consortium, University of Wisconsin System. youreconomy.org Accessed February 2023.

Between 2004 and 2021, the number of new business startups exceeded the number of business exits except for during the Great Recession and the pandemic. During the pandemic years of 2020-'21, Las Vegas experienced the highest rate of business closures in over two decades. A substantial portion of those closures came from the small business community among businesses in the retail, hospitality, and services sectors with two to nine employees.

Numbers and Sizes of Companies Over Time in Las Vegas MSA

Businesses	2011	2016	Change ('11-'16)	2016	2021	Change ('16-'21)
Self-Employed sole proprietorships of one employee	9,604	10,019	4.3%	10,019	12,438	24.1%
Small 2 to 9 jobs including proprietorships	47,093	58,915	25.1%	58,915	61,922	5.1%
SME (Small-medium Enterprises) 10 to 99 jobs	13,157	12,452	-5.4%	12,452	13,641	9.5%
Mid Size 100 to 499 jobs	1,021	1,059	3.7%	1,059	1,108	4.6%
Large 500 or more jobs	184	141	-23.4%	141	135	-4.3%
TOTAL BUSINESSES	71,059	82,586	16.2%	82,586	89,244	8.1%

Source: Business Dynamics Research Consortium, University of Wisconsin System. youreconomy.org Accessed February 2023.

In spite of these disruptions, the number of overall businesses in the Las Vegas Metropolitan Statistical Area (MSA) continues to grow. Between 2016 and 2021, every category of business size (with the exception of those companies with more than 500 employees) saw rising numbers of new businesses.

Sole proprietorships grew at the highest rates with an increase of 24.1% between 2016-21. (An unreleased preview of YE data reports additional growth in 2022 to 15,636). As noted in the state section of this report, however, Nevada has heightened rates of necessity entrepreneurship. The Kauffman Foundation measures necessity entrepreneurship as the percentage of individuals who start businesses directly from unemployment vs. those who start a business due to a perceived opportunity.

The state of Nevada's share of necessity entrepreneurs is 23.6%, up from 17.48% pre-pandemic. Las Vegas continues to have high unemployment rates, currently at 5.5%, which suggests that some individuals have become entrepreneurs because they perceive few options for employment. Necessity entrepreneurs may be leading the sole-proprietor growth in Nevada.

In the middle of the stack, Nevada has a growing influx of employer firms, driven in part by the poor business climate of California and the flexibility of remote work. These companies and new employer-based startups are driving solid growth among employer firms of 10-99 employees, with 9.5% growth between 2016 and 2021.



Las Vegas Benchmark Cities

Comparisons were determined by a combination of "ideal benchmark cities" held up by local leadership as places where they intuitively compare themselves plus other cities where population and entrepreneurial activity were comparable. For this assessment, we highlight the unique ecosystems of Denver, Nashville, Portland, Ore., Tucson, and Boston.

1. Denver

Solid technology transfer

Denver is home to 63 venture capital firms, Techstars global accelerators, and the famous Commons on Champa, a high-tech coworking space that brands itself as Denver's public campus for entrepreneurship. The Colorado Innovation Network (COIN) works to connect 29 Colorado research facilities with entrepreneurs. It is supported by the Colorado Impact Fund, a public-private \$80M fund.



2. Nashville

A statewide ecosystem infrastructure

Nashville boasts a thriving music scene, including rich historic and cultural placemaking resources. Nashville's ecosystem is funded in part by the Launch Tennessee network, a public-private partnership that leverages customized programs and investment across multiple ecosystems throughout Tennessee.



3. Portland

Serving specific industry clusters

Portland, Oregon's ecosystem is among the oldest in the United States. Efforts began in the early 2000s to foster climate technologies that align with the city's natural resource ethos. Portland introduced the country's first bachelor's degree in renewable energy in 2008 and created novel state legislation called the Portland Clean Energy Fund (PCEF) to support marginalized communities. In 2021, climate tech companies raised nearly \$550M in venture capital.



4. Tucson

Serving the entire entrepreneurial stack

Tucson's entrepreneurial support organization, Startup Tucson, has grown from one focused only on startups to an industry-agnostic driver of innovation. By adopting a broader definition of entrepreneurship and supporting entrepreneurs rooted in the city's strengths, Startup Tucson has seen more diverse businesses, resulting in a very strong regional economy in Arizona.



5. Boston

A tri-hub innovation district

Boston is one of the strongest ecosystems in the world, anchored by 44 universities and colleges in the region that support talent acquisition at a level not available in most American cities. The ecosystem, is anchored by three hub districts: The Seaport District, South Station complex, and the affluent Back Bay/ South End area.



Demographics

Goals: There are baseline demographics common to vibrant ecosystems, including higher educational levels (particularly in STEAM fields), higher median household incomes, diversity, and high household adoption to the internet.

Age, Income, and Education

	Median Age	Median Household Income	Bachelor's Degree or Higher
Las Vegas	38	\$63,677	27%
Boston	39	\$100,750	51%
Denver	37	\$90,716	48%
Nashville	37	\$72,725	40%
Portland	39	\$83,943	42%
Tucson	39	\$60,667	35%

Source: 2021 American Community Survey Five-Year Estimates Data Tables, U.S. Census Bureau. data.census.gov/ Accessed February 2023.

Las Vegas ranks similarly to benchmarked cities in median age. The median household income is above Tucson's but lower than for other cities. Las Vegas trails in education among those who have earned a bachelor's degree or higher. Among entrepreneurs interviewed with families in Northern and Southern Nevada, 100% indicated their children were enrolled in private schools.

There are more than 7,500 charter schools across the United States and 78 in Nevada. Across the country, some charter schools offer specialized curriculum in STEM, technology, and entrepreneurship. San Diego's <u>School for Entrepreneurship and Technology</u>, for example, is an accredited charter school serving about 400 students in grades 9-12 with STEM-based education and entrepreneurial-focused training.

100% of entrepreneurs with families interviewed in Nevada, indicated their children were enrolled in private schools.

Kauffman Indicators of Entrepreneurship

	Contribution	Creation
Las Vegas	4.1%	4.68
Tucson	2.7%	2.38
Portland	3.1%	5.52
Boston	2.7%	3.65
Nashville	3.3%	5.69
Denver	3.3%	5.13
National Avg.	3.1%	3.36

According to the Kauffman Foundation, Las Vegas entrepreneurs less than a year old contributed 4.1% of private sector employment in the MSA in 2021. This is measured as the ratio comparing employment in firms 0-1 year of age to the total employment. This is the highest rate among benchmarked communities.

In the Las Vegas MSA, 4.68 more jobs were created than were lost at firms 0-1 year old. This compares to 3.36 at the national level.

	Compensation	Constancy
Las Vegas	65.5%	51.3%
Tucson	60.5%	53.3%
Portland	59.3%	54.2%
Boston	178.8%	59.2%
Nashville	69.8%	53.5%
Denver	79.0%	53.3%
National Avg.	55.1%	53.8%

Las Vegas startups are compensating their employees at 65.5% of the average wages paid at all firms across the country. Compensation varies widely across the country, with Boston ranking among the highest nationwide.

In 2021, most benchmarked cities experienced churn in jobs; just over half of new jobs in Las Vegas lasted longer than three consecutive quarters at 51.3% and 53.8% nationally.

Source: 2021 Kauffman Indicators of Entrepreneurship. indicators.kauffman.org/data-tables Accessed February 2023.

Metro Workforce Employment by Industry (Top Five in Las Vegas)

	Accommodation and food services	Retail trade	Health care and social assistance	Arts, entertainment, and recreation	Construction
Las Vegas	13%	12%	11%	8%	7%
Boston	5%	9%	16%	2%	6%
Denver	5%	10%	12%	2%	8%
Nashville	6%	12%	14%	2%	6%
Portland	6%	11%	14%	2%	7%
Tucson	8%	12%	16%	3%	6%

The entertainment sector in Las Vegas continues to dominate the workforce. More than 20% of Las Vegas workers are in the accommodation and food services and entertainment sectors. The high proportion of hospitality workers is likely driving other indicators, including necessity entrepreneurship and lower household incomes.

About 1.6% of the workforce in Las Vegas is employed in the tech sector, ranking higher than Portland and Tucson. According to CompTIA's 2022 <u>State of the Tech Workforce</u>, Las Vegas currently ranks 40th in the country for tech jobs.

Technology Workforce

	Las Vegas	Tucson	Portland	Boston	Nashville	Denver
Information Technology	1.6%	1.5%	1.5%	2.2%	2.1%	3.0%

Source for all demographic tables: 2021 American Community Survey Five-Year Estimates Data Tables, U.S. Census Bureau. data.census.gov/ Accessed February 2023.



Las Vegas Metro Area Race/Ethnicity

	White	Black or African American	American Indian and Alaska Native	Asian/Pacific Islander	Hispanic or Latino
Las Vegas	44%	12%	1%	10%	32%
Boston	68%	7%	0%	9%	12%
Denver	66%	6%	1%	4%	24%
Nashville	72%	14%	0%	3%	8%
Portland	72%	3%	1%	7%	13%
Tucson	58%	4%	3%	3%	39%

Source for all demographic tables: 2021 American Community Survey Five-Year Estimates Data Tables, U.S. Census Bureau. data.census.gov/ Accessed February 202

The amount of diversity in Las Vegas is unparalleled compared to most urban cities in the United States. In a 2023 WalletHub survey, the Las Vegas valley was highlighted as one of the most diverse areas of the country. Four Las Vegas townships as well as the cities of Las Vegas and North Las Vegas are in the top 50 cities nationwide. More than half the population of Las Vegas is Black, indigenous, or people of color. Residents speak many languages, including Spanish, Tagalog, Chinese, Amharic, Vietnamese, German, Mandarin, and Japanese. During 2021, more than 3.2 million visitors visited Las Vegas. Pre-pandemic, nearly 20% of visitors were from outside the country; those numbers are climbing back. The entire region is richly connected to dozens of cultures around the globe.

Diversity is not limited to ethnicity or race. According to <u>Gallup</u>, the percentage of U.S. adults who self-identify as lesbian, gay, bisexual, transgender, or something other than heterosexual has increased to a new high of 7.1%, which is double the percentage from 2012. Over 20% of Generation Z now identifies as LBGTQ. At a January 2023 Tech Alley meetup in Las Vegas, Robert Rueter of WebQ, a national LBGTQ advocacy organization headquartered in Las Vegas, fielded questions from an audience of founders around creating a more inclusive Las Vegas ecosystem.

"Historically, peripheral communities provide immeasurable opportunity for economic development. According to the National LGBT Chamber of Commerce, only 13 nations in the world exceed the economic activities of our businesses."

 Robert Rueter, Executive Director of WebQ.org and Entrepreneur in Residence, UNLV



Startup/Scaleup Activity

According to <u>Las Vegas Dealroom</u>, there are 1,200 technology startups in the Las Vegas region. They are split across multiple industries and include media and gaming, financial tech, marketing, and health tech. The number of funding rounds tracked by Dealroom associated with these companies has risen from 560 in September of 2021 to more than 715 in March of 2023. Collectively, companies in the Las Vegas region raised \$436M in 2022. In April of 2023, Las Vegas was ranked the #1 City for pre-IPO startups in the country by Crowdfund Capital Advisors. The assessment excludes established ecosystems like Boston and Los Angeles in order to showcase up and coming regions. Las Vegas outperformed growing ecosystems in important regions like Nashville, Denver and Atlanta.

Most of Las Vegas's current ecosystem work is driving support around these innovators, including investments in facilities and programs by UNLV and the City of Las Vegas. Jamie Schwartz is the Director of Industry and Business Engagement at UNLV's office of Economic Development. She is a constant leadership presence at events and programs; she presents at Tech Alley, leads university entrepreneur events and is central to the emerging technology transfer strategies being implemented to improve connections between the university and the entrepreneurial community. Similarly, Elizabeth Lopez, a Sr. Economic Development Specialist at the city of Las Vegas has been a connecting force. The city has invested both dollars and leadership into supporting partnering organizations and built the International Innovation Centers I and II. Lopez launched the entrepreneur breakfasts in downtown Las Vegas, hosts Mastermind events and is a key connector between the city and entrepreneurs. Other work is underway in Henderson, Paradise, Enterprise, and Spring Valley, orchestrated by ESOs and Chambers of Commerce in those regions.

In comparison, however, the number of entrepreneurs championing the ecosystem is substantial. Heather Brown is the cofounder and President of <u>StartUp Vegas</u>, a startup support organization based in Las Vegas. She is a super connector and advocate for the Las Vegas ecosystem, instrumental in establishing public-private partnerships to promote entrepreneurial development in Nevada. StartUp Vegas hosts dozens of events throughout the year, including LevelUp, which kicks off at CES, and a monthly networking event called LinkUp. StartUp Vegas events provide entrepreneurs with opportunities to connect with investors, mentors, and other community leaders.



Last year, Brown became the youngest woman elected to the Nevada System of Higher Education (NSHE) Board of Regents, where she focuses on building policy and educational change to develop the talent pipeline. In April 2023, Brown was tapped to join the Las Vegas Global Economic Alliance (LVGEA) to bring together entrepreneurs, investors, and community leaders to foster the growth and development of the startup ecosystem in the region.

Jeff Saling is a Silicon Valley entrepreneur with a focused vision around developing the angel capital spectrum in Nevada. He cofounded StartUpNV, which has launched multiple funds including FundNV and AngelNV, and is currently building a new \$10M fund called the 1864 Fund. In December, StartupNV was tapped to manage Northern Nevada's Sierra Angels.

Jimmy Jacobson is a partner at Codingscape. His company is made up of approximately 80 talented architects, seniorlevel engineers, and product people who helped build Zappos, Overstock, Amazon, and numerous tech startups. When recent rounds of layoffs were announced in the technology sector, Jacobson created a database of those being laid off and routed the list among peer companies to see who could pick up which coders. "We cannot let good tech people leave Las Vegas for better opportunities," he said. "We need to ensure that when layoffs happen or someone looking for the next their career, that there is always another tech job available in the valley. That is how we will keep the ecosystem healthy."

"Entrepreneurship is not a solo journey. StartUp Vegas was born from the understanding that it takes a grassroots community of support, collaboration, and innovation to bring ideas to life and create a lasting impact."

—Heather Brown, Startup Vegas

Dan Hugo is the founder and principal at ReallyCool Technologies LLC, a technology development and consulting company based in Nevada focused on innovation and social good in Las Vegas. He is also the Managing Director for the Innovate for Vegas Foundation, a 501(c)(3) public charity dedicated to enabling and encouraging ideation, innovation, and implementation to make communities better, and to "Make Our Smart City Smarter." In 2022, Hugo launched a project called Caffe Genius, which he describes as a forum for thinking outside the box—like experimental meetup colaboratories, pitch workout rooms, and genius roundtables—where participants seriously consider the entrepreneurial ecosystem in Las Vegas and how to measure and elevate it.

Kurt Walker at <u>Captal Platform</u> is a key Las Vegas ecosystem builder, brokering connections and relationships between entrepreneurs and ESOs in the city. He embodies the community-building ethos of "just show up." He attends ESO meetings and entrepreneur networking events and is a key online presence supporting Las Vegas entrepreneurs. In 2022, he founded the Captal Platform, a startup he envisions will automate those connections, beginning with automating entrepreneur access to capital. Walker believes Las Vegas is close to building a 'virtuous cycle' of founders who attract capital, then invest in others. He is committed to accelerating that cycle.

Josh Leavitt leads <u>Tech Alley</u>, a Las Vegas and Reno nonprofit that hosts regular, outward-facing unconference events in MidTown in Reno and in the Las Vegas Arts District. His events attract some of the most diverse entrepreneurs in the city, including high school innovators, venture capitalists, international entrepreneurs, scaling retailers, and many creatives.

Collectively, across the public and private sector in Las Vegas, there is activity, energy, and initial economic impact underway across a width swath of supporters; however, it is not unified or managed across the region. Central to the growth of ecosystems in places like Tucson and Denver has been uniting



the champions from across the public and private sectors in support of a common vision.

Small Business Activity

Throughout the Las Vegas MSA, thriving hubs of tightly knit small and minority businesses, clustered by language and culture, are operating microbusinesses across multiple sectors. These clusters are served by one or more of the 11 active Chambers of Commerce and by the NSBDC. The ecosystem field has been slow to build metrics around how well microbusinesses are adapting to a tech-led economy.

The Venture Forward project at GoDaddy has launched new measuring tools to explore this. Venture Forward examines the business experience of microbusinesses—defined as companies with 10 or fewer employees and an online presence—to understand how this portion of the stack holds up in the new economy. The Microbusiness Activity Index (MAI) (below) assesses the number of microbusinesses in an area (participation), how active they are (engagement), and how well-prepared a community is to support them (Infrastructure). MAI provides an overall score that community leaders can use as a benchmark for



understanding patterns and opportunities within the ecosystem that serve this segment of the stack. In Las Vegas, there are nearly 75,000 microbusinesses with fewer than 10 employees. Las Vegas has a low MAI at 9.9, trailing all the benchmark cities, but above the national average of 5.5.

Microbusiness Activity Index (MAI) and Component Sub-Indices

Las Vegas	MAI 9.9	Engagement 4.8	Participation 7.8	Infrastructure 8.4
Boston	10.9	13.2	1.9	19.9
Denver	14.2	10.6	6.8	20.3
Nashville	11.8	10.8	5.6	14.4
Portland	14.5	13.3	6.6	18.7
Tucson	11.2	12.9	4.1	13.6
National Avg.	5.5	11.6	0.8	3.2

Source: 2022 GoDaddy Venture Forward Microbusiness Data. godaddy.com/ventureforward

Engagement is a measure of signals determining how active a business is online—its traffic, economic footprint, and web security measures, for example. Las Vegas has the lowest index at 4.8 among benchmarked cities, suggesting the microbusinesses that are online in Las Vegas are not actively engaged.

Participation considers the raw number and growth rate of both small businesses and the entrepreneurs who own them. Interestingly, Las Vegas performs better than any other region here, suggesting that large number of microbusinesses and individuals are starting online companies.

Infrastructure assesses how well-connected a community is to bandwidth and the socioeconomic status of its microbusinesses. Las Vegas's score of 8.4 reflects the gaps in high-speed internet availability in the MSA. Other cities may be doing



more to improve high-speed internet availability and adoption rates or may have businesses who have a stronger socioeconomic status. While Las Vegas lags behind the benchmark cities, it is above the national average infrastructure index of 3.2.

The Microbusiness Industry and Commerce table showcases the top three industries small businesses are engaged in online. In the Las Vegas MSA, the top industry is beauty followed by consulting and fashion. The Orders percentile ranks each region for its online orders per capita. At 18, Las Vegas ranks well in this ranking, ahead of Boston, Denver, and Nashville.

Microbusiness Industry and Commerce

	Orders Rank	Merchants Rank	GMV Rank	Top 3 Industries
Las Vegas	18	9	16	Beauty, Consulting, Fashion
Boston	75	72	51	Fashion, Retail, Health and Medicine
Denver	30	28	26	Retail, Music, Hobby
Nashville	41	26	73	Events, Sports, Health and Medicine
Portland	8	52	31	Fashion, Automotive, Hobby
Tucson	5	80	44	Art & Design, Charity or Politics, Health and Medicine

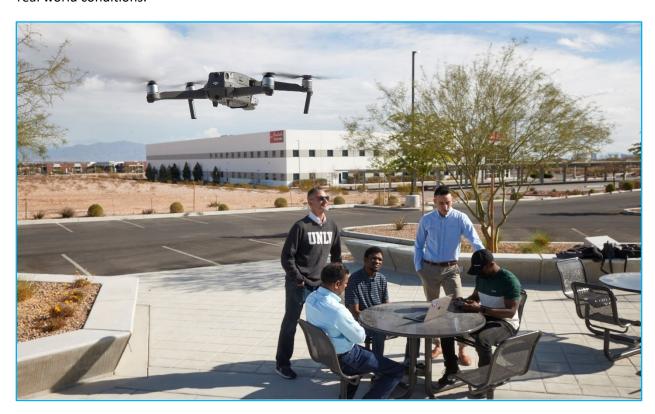
Source: 2022 GoDaddy Venture Forward Microbusiness Data. godaddy.com/ventureforward

The Merchants percentile measures the number of online merchants per capita. Las Vegas ranks top of this listing, reflecting the high number of online microbusinesses in the region. The online gross merchandise value (GMV) reflects gross sales per capita. Las Vegas ranks high in this category at 16 suggesting that the average sale among online businesses in Nevada is more than in comparable cities.

Public Policy

Goals: Future-focused public policy should strive to reduce the friction associated with startup activity, including compliance, licensing, and regulation. The public sector should operate to guide and support vs. ban or bar. It is in the hands of public policy makers to ensure that everyone has access to ubiquitous, affordable, high-speed bandwidth.

Nevada's entrepreneurial culture does not thrive solely in the private sector. Some of the state's most innovative ideas have come from intrapreneurs, individuals who act entrepreneurially within an institution. More than one Nevada intrapreneur has positioned the state for global dynamism in the new economy. Michael Sherwood, Chief Innovation and Technology Officer for the City of Las Vegas, is one such person. Sherwood leads the Smart City Innovation District project, which encourages entrepreneurs to test their new smart technologies in a small section of Downtown Las Vegas under real world conditions.



Based on six strategic priorities of the city, entrepreneurs engaged in specific sectors are invited to beta minimum viable products (MVPs), software, and equipment utilizing multiple kinds of downtown infrastructure. This wide-open-door approach to research and testing in public spaces has drawn acclaim and envy from some cities and sharp criticism from others. During an interview for Bloomberg, Sherwood said, "It's not just about the technology. It's about letting companies know that Las Vegas is more than entertainment."

To date, the city has partnered with entrepreneurs across multiple sectors, including self-driving shuttles, IoT-based public park safety software, and a novel technology that facilitates two-way communications between drivers, walkers, and bikers on city streets. A <u>recent analysis</u> from Frost & Sullivan projects that smart cities will spend an estimated \$327 billion by 2025 and could spur up to \$2.46 trillion in business opportunities by the same year.

Business Licensing

To apply for a business license in Las Vegas, an entrepreneur must first complete a short list of other state and local registrations, including applying for a state business license at SilverFlume, then apply for a separate <u>city business license application</u> on a Las Vegas city portal. The application on the city portal is very similar to the application at SilverFlume, in essence requiring an entrepreneur to enter their entire business information package twice.

Broadband Access in the Las Vegas MSA

	Cable, fiber, DSL	Satellite	Cell only	No Internet Service
Las Vegas	91%	6.8%	10.5%	12.5%
Boston	93%	2.8%	7.7%	8.9%
Denver	94%	6.7%	8.0%	7.5%
Nashville	93%	6.7%	10.9%	10.4%
Portland	94%	4.8%	9.0%	8.0%
Tucson	91%	7.0%	12.0%	10.7%

Source: 2021 American Community Survey Five-Year Estimates Data Tables, U.S. Census Bureau. data.census.gov/ Accessed February 2023.

While the majority of residents in Las Vegas have access to bandwidth, 23% of Las Vegas residents have no internet or rely solely on cell phone connectivity. Many of these households are in lower-income neighborhoods. To compete in a global economy, whether with an online merchant side gig or running a tech-led business, access to high-speed and affordable internet is critical. Some urban districts create their own mesh webs to serve entire neighborhoods. Dozens of Main Street communities across the country have installed free Wi-Fi downtown to attract home-based businesses.



Place

Goal: Natural, built, and cultural resources collectively create a fertile landscape that attracts entrepreneurs and the talent they hire. Central to this are public-private partnerships (placemaking at scale), designation and branding of entrepreneurial hubs, and a supportive culture that promote lifestyles of innovation, curiosity, community connection, and creativity.

The place-based assets of Las Vegas are substantial, ranging from the entertainment and hospitality sector of the Strip to the city's proximity to capital and talent in the Silicon Valley. The climate in Las Vegas is winter-mild, outdoor resources abound, and a diverse international culture supports big ideas. These are the kinds of resources other ecosystems aspire to. Three physical hubs in Las Vegas supporting entrepreneurs are interspersed in and along the Strip. Each of these hubs is vibrant, offering an emerging menu of unique services that attract and engage entrepreneurs across a broad swath of industries.

Downtown Hub

The downtown hub is an emerging smart-tech cluster. Smart tech includes technologies for self-monitoring, analysis, and reporting that allow sensors, databases, and wireless access to collaboratively sense, adapt, and connect users. The city's Smart City Innovation District is a one-of-a-kind testing space for smart-tech experimentation. In the center of this hub is a city-owned coworking space called the International Innovation Center (IIC). The IIC supports 11,000 square feet of hot desks, offices, and meetup space. It serves an array of startups in IoT, virtual reality, and logistics. Multiple startups and ecosystem builders call the Innovation Center home. StartupNV and Startup Vegas both have offices and hold events regularly. Influential, the largest VC-backed Nevada startup is officed here.

Arts District

Tony Hsieh's Downtown Project was tied to creating space—a vibrant community where creative collisions would occur and a hub where startups would share ideas and solve problems in a mash-up of culture, arts, and entertainment. That district has reemerged in 2023, deeply tied to the creative arts and entertainment sectors but also attracting growing numbers of augmented reality (AR) and immersive media companies. Multiple AR companies are in City's International Innovation Center II, which opened in the Arts District in September 2022, including PAM, a digital wayfinding system and Dragone, a Luxembourg-based creative media company with ties to large-scale Las Vegas multimedia shows. Tech Alley's unconference is hosted here and more efforts are underway at Area 15, an interactive arts complex near the district that has launched a 90-acre expansion, including Meow Wolf, a large-scale immersive arts and tech venture. In 2022, Gener8tor hosted its first accelerator cohort in the Arts District in 2022.







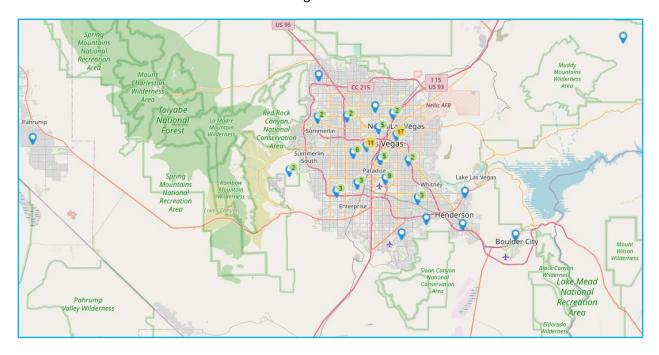
Black Fire Innovation

At the edge of the strip is UNLV's Black Fire Innovation Center, a gaming and hospitality hub at the Harry Reid Research and Technology Park. The center resulted from a novel corporate partnership with Caesars Entertainment. It features an operational casino and hotel laboratory, a gaming accelerator, coworking spaces, and multiple resources partners, including the NSBDC and UNLV's Office of Technology Transfer. This spring, UNLV is launching another public-private partnership with Zero Labs, a novel incubator and accelerator founded by Quinton Singleton, a multigenerational Nevada native and well-known Las Vegas entrepreneur. Zero Labs will provide resources, support, and mentorship, including incubator and acceleration programs, to founder-led startups and early-stage companies based in or relocating to Nevada. The overarching property plan for the technology park includes a sports innovation complex with wet and dry labs, prototyping resources, and leasable spaces for startups and coworking.

Resource Networks

Goals: High-performing ecosystems offer a full spectrum of resources, including capital, technical assistance, and dense network resource providers offering onramps, interactions, and collisions to raise and empower all who wish to participate in the economy.

More than 70 organizations in the Las Vegas MSA support entrepreneurs as a part of their mission, as shown below. Collectively, they are doing excellent work; however, there is little cross-collaboration. During interviews and roundtables in Southern Nevada, entrepreneurs and ESOs indicated that more connections and collaboration are needed to align the various resources.



A lack of connectivity can reduce the value of all community assets. The Kauffman Foundation issued a report in 2015 called <u>Measuring an Entrepreneurial Ecosystem</u>. In it, the authors describe the importance of "density" in ecosystems, suggesting that the mere existence of programmatic resources is not the same as effectiveness, let alone vibrancy; they suggest that dense networks of connections matter more. Across the benchmark communities of Denver, Nashville, and Boston, dense connections are widely credited as the catalyst for growing those cities' ecosystems.

In Denver, entrepreneurs and ESOs gather annually for <u>Denver Startup Week</u>, which unites more than 20,000 entrepreneurs and ESOs for a full week of building connections and relationships. After a pandemic pause, the event is back in September 2023, billed as the largest free event of its kind built by the community for the community.

Nashville hosts two major connecting events. <u>Innovation Week</u> is an advocacy event in March that engages lawmakers, policy leaders, entrepreneurs, and ESOs to share and build support for the ecosystem. Later in the year is the iconic <u>3686 Festival</u>, which celebrates entrepreneurship through a multiday entrepreneur-focused slate of speakers,

Kansas City Ecosystem Building

In the aftermath of the pandemic, more than 160 ESO organizations came together for a half-day ecosystem-building event in Kansas City. This two-day event, held in September 2022, brought diverse ESOs to gather around one table to share their activities, learn from one another, and strategize how to best collectively support the ecosystem going forward.

"... [R]elationships in the ecosystem take work to develop and maintain. Often it can be of great benefit for cities to pull as many of their entrepreneurship support organizations together just for the purpose of relationship building."

—Dr. Dell Gines, Nevada National Roundtable

events, tours, and peer celebrations. Collectively, these events are managed by <u>Launch Tennessee</u>, a novel statewide infrastructure created through public-private partnerships to seed, support, and manage the growth of Tennessee's innovation economy.

At District Hall, one of Boston's three entrepreneurship hubs, an 8,000-square-foot innovation center hosts dozens of events supporting entrepreneurs every year. Rather than a single supportive festival or conference, Boston hosts dozens, including entrepreneurship events targeting specific industries or segments of the entrepreneurial community, such as the <u>Latino Small Business & Entrepreneurial Summit.</u>





Capital

The equity capital spectrum in Nevada is bottlenecked in some sectors and missing critical investment dollars in others. As noted in the GOED Five-Year Comprehensive Economic Development Strategy and confirmed by multiple interviews with key leadership at UNR, UNLV, and DRI, there is a gap at these institutions in the availability of late-stage research and commercialization capital prior to licensing.

There is also a rapidly growing gap in capital available statewide to entrepreneurs seeking concept validation through the development of minimum viable products (MVPs), product-market fit, and customer discovery. According to entrepreneurs interviewed, funding in this space had come from angel investors, but nationally and within the state, angel investment has moved from pre-revenue investment to post-revenue. This lack of late-stage funding among scientific researchers and additional lack of validation capital in the entrepreneurial community represent two bottlenecks that threaten to slow or stall technology transfer and the successful launch of community entrepreneurial ventures in the state. Across the country there are many examples of funds that serve to address one or both capital gaps.

In Colorado, the <u>Advanced Industries Proof of Concept Grant</u> supports late-stage research and commercialization up to \$150K per project. In lowa, the <u>Proof of Commercial Relevance (POCR) program</u> is part of a state pipeline that provides ongoing rounds of funding for technologically innovative ventures, beginning with a \$50K POCR loan supporting MVP and product-market fit. In California, the private-sector <u>Growth Factory accelerator</u> provides extended support for pre-revenue innovators, delivering pre-seed capital and technical assistance to help participants achieve \$1M in annual recurring revenue over 18 months.

Angel Funds

Nationally, key indicators in the angel investment space have improved over the past two years. According to the <u>Center for Venture Research</u>, the number of companies who received funding nationwide increased by 7.1% to 69,060 in 2021. The average amount of each deal increased to \$421,675, up 7.6% over the previous year. The amount of equity received by investors averaged 9.5%, down a fraction from 2020, possibly reflective of higher valuations in 2021.

Nationally, entrepreneurs had a roughly 1:4 shot of receiving equity investment in 2021.

—Center for Venture Research analysis report, 2022

In Nevada, several sources of funding have the potential to serve the angel investment needs of the startup/scaleup community. Four of these are led by StartupNV. StartupNV is a statewide, nonprofit accelerator and fund manager based in Las Vegas. The organization manages FundNV and a novel conference fund called AngelNV and in 2021 began raising a new \$10M fund called the 1864 Fund.

Access to venture capital in Nevada is a short flight from any urban area of the state. Entrepreneurs in Las Vegas have self-described expertise in seeking valley investors for series A and beyond. Recently, the GOED compiled a list of in-state venture capital funds and investors. The list, although informal, includes more than 600 funds and individual investors in Nevada, but they are fragmented and largely unaligned. According to Zach Miles, AVP for Partnerships and Technology at UNLV, uniting the venture community is key to launching a stronger technology transfer pipeline where focused rounds of funding are needed to move intellectual property out of DRI, UNR, and UNLV. A new venture fund at UNLV called Scarlet Capital is planned.

Technology Transfer

More than \$250 million in research expenditures occur each year on average, at UNLV, UNR, and DRI in support of basic, applied, and experimental research. Some of this research results in intellectual property (IP) that can be commercialized. Technology transfer is the movement of IP derived from this research into the economy through various forms of licensing and agreements.

UNLV is in the process of reimagining technology transfer. They are in the early stages of implementing a strong "research to commercialization" strategy with multiple industry specific pathways to guide campus innovators, including students, through the commercialization process. Their goals include increasing faculty research activity, improving campus awareness of how to engage with the UNLV Tech Transfer Office, supporting regional economic development and promoting industry and workforce diversification.

Las Vegas Global Economic Alliance (LVGEA) and other economic development organizations in Southern Nevada have an opportunity to position their existing industry engage with the startup community around innovative technologies and to secure licensing for key business expansion opportunities. The startup ecosystem has opportunities to add new, globally important companies in emerging industries in the local community.



Las Vegas Action Plan

Las Vegas is a vibrant multi-faceted city, lacking only a unified effort to build a world-class ecosystem. This is a city where specialized sector resources abound, entrepreneurial activity across multiple new economy industries is on the rise and a vibrant international community of corporate leaders and investors are poised to actively support big ideas.

Convene the Ecosystem Champions

Convening public and private sector champions together will catalyze the rich resources of the region, hold up the energy and perspectives of diverse champions and create a unified community around the innovation economy.

Potential Owners: Las Vegas Entrepreneurs, all ESOs

- 1. Host a Governor's Innovation Summit in Las Vegas.
 - a. Unite ESOs and entrepreneurs around a common vision
 - b. Develop a common pledge to dedicate resources and talent in support of the ecosystem
 - c. Coalesce around a unified message to advocate for entrepreneurship priorities in funding allocations, streamlined business licensing and a Governor's office of entrepreneurship
- 2. Establish regular Las Vegas ESO/entrepreneur meetups
 - a. Build common reporting and measuring tools to showcase good work and track progress
 - b. Deliver a stand-alone annual entrepreneurship report to the community
 - c. Institute feedback loops at all events and activities

Key Performance Indicators: A broad-based coalition of ecosystem champions will collaborate to ignite the Las Vegas ecosystem, including leveraging public and private sector talent, resources and programs, creating a shared set of metrics to guide success and dense connections throughout the ecosystem.

Ignite the Las Vegas Hubs

More than 1,200 tech startups across multiple growth industries are served by three ecosystem hubs in Las Vegas. Building out unified strategies among public and private partners to advance each hub will accelerate the growth of industry sector innovation and ignite the entire ecosystem.

Potential Owners: City of Las Vegas, UNLV, LVGEA, Las Vegas Entrepreneurs

- 1. Smart tech Hub: Las Vegas will become America's smart tech testing and launch hub
 - a. Conduct a feasibility study associated with expanding the smart tech hub in Las Vegas
 - i. Identify barriers, develop application program, marketing
 - b. Expand the City of Las Vegas Smart City Innovation District into a city-wide laboratory
 - i. Invite global entrepreneurs to test smart-tech innovations

- 2. Develop an array of capital, accelerators, studios and research support resources supporting smart tech testing and commercialization.
- 3. Showcase Smart Innovation Projects and companies to a global market
 - a. Collaborate with Las Vegas conference schedule to host tours, share best practices, feature smart-tech entrepreneurs and their innovations to outside cities

Key Performance Indicators: Smart tech innovators will naturally relocate to Las Vegas to take advantage of the frictionless network of supportive services, public lab, capital and peer networks surrounding the smart-tech downtown hub.

Potential Owners: 18B Arts District Association, City of Las Vegas, Tech Alley, LVGEA, Startup Vegas, LVCVA, Las Vegas Entrepreneurs

- 1. The Arts District Hub: Las Vegas will reimagine the arts district as an immersive technology hub for next generation entertainment arts.
 - a. Convene a roundtable of public and private technology and arts entrepreneurs to ideate other resources needed to support immersive technologies
 - b. Host Nevada AR, VR and Creative Arts conference in the district
 - c. Build the AR, VR and Creative Arts talent and founder pipeline
 - i. Collaborate with LVCVA/LVGEA on AR founder attraction campaign

Key Performance Indicators: Immersive technology business starts and expansions will increase in the arts district.

Potential Owners: UNLV, LVGEA, Las Vegas Entrepreneurs, regional corporations

- 1. Black Fire Innovation Hub: Position UNLV's Black Fire Innovation Center as a connecting resource between founders and corporations, fostering collaboration, connections and shared economic resources.
 - a. Pursue corporate sponsorship in support of emerging innovation
 - i. Broker SBIR/STTR opportunities between local founders and corporate partners
 - ii. Connect like- industry corporate partners with startup founders
 - b. Encourage the appointment of internal innovation officers at Las Vegas corporations
 - c. Promote internal 'ideate' pitch contests at corporations to improve their operations, products
 - d. Organize coworking Jellys at corporate facilities to connect founders and corporate talent

Key Performance Indicators: Increased SBIR and STTR applications, new sponsored research acquired at UNLV, corporate spin-offs increase.

Streamline Technology Transfer

Streamlining the technology transfer processes at UNLV and DRI will improve licensing capability in the state. Build the capacity of existing Nevada businesses and startups to commercialize IP.

Potential Owners: GOED, OSIT, NSBDC, Chambers of Commerce, City of Las Vegas, College of Southern Nevada, Women's Business Center, Nevada Department of Business and Industry,

- 1. Foster technology transfer and commercialization capacity in the region
 - a. Implement the UNLV technology transfer plan (reflecting policy at UNLV and DRI) that streamlines access to and licensing of intellectual property
 - i. Position Black Fire Innovation as the gateway to all UNLV commercialization resources
 - ii. Normalize the inventor/institution licensing split if needed
 - iii. Institute tenure track policies which reward patenting and commercialization
 - iv. Include a 'Nevada First' licensing strategy
 - b. Fully fund the Scarlett Capital Venture Fund as a statewide Venture Fund
 - i. Convene investors statewide
 - ii. Launch campaign in tandem with LVGEA and EDAWN and other partners
 - 1. Goal of \$50M
 - c. Build capacity of LVGEA to market and broker licensing of IP
 - i. Certify LVGEA team in technology transfer
 - ii. Develop a tech-led strategy
 - 1. Add IP commercialization questions to surveys/site visits
 - 2. Build a portfolio of companies poised for tech-led growth
 - 3. Develop a marketing plan to connect emerging IP with regional corporations/startups

Key Performance Indicators: Businesses will easily access and navigate the licensing opportunities at UNLV, DRI through a gateway at Black Fire Innovation. LVGEA will be poised to broker resources and connections across the Southern Nevada business community, resulting in new global business startups and growth in the Las Vegas region.

Workforce Diversification through Entrepreneurship

The Las Vegas economy is heavily reliant upon hospitality employment. Empowering the 75,000 microbusinesses in the region with 10 or fewer employers- many of whom are necessity entrepreneurs-to engage online in the global economy will diversify and expand the workforce and grow the ecosystem.

- 1. Provide the infrastructure and training microbusinesses need to succeed in the new economy
 - a. Create free WiFi hubs in socioeconomically disadvantaged neighborhoods
 - i. Utilize data visualization software at OSIT to target neighborhoods and districts
 - ii. Identify WiFi options for mesh and hot spots
 - iii. Secure cooperative agreements with existing ISP providers
 - iv. Identify funding partners from among state, city, local sponsors or businesses

- **b.** Improve digital literacy and business technology skills of microbusinesses
 - i. GOED, OSIT set aside funds for business digital literacy
 - ii. Develop highly customized online training resources at NSBDC
 - iii. Expand multi-lingual and online business training among other partners

Key Performance Indicators: Microbusinesses are engaged and conducting business online. The rate of necessity entrepreneurs is reduced while overall microbusiness numbers increase.

Las Vegas Voices

"There has been a seismic shift in entrepreneurship in Las Vegas. We haven't done a good job of exploiting our hubs to keep up."

—Leith Martin, Executive Director, Troesh Center for Entrepreneurship and Innovation, UNLV

"We have so many terrific resources. We cannot operate in isolation if we want to reach our potential."

—Jamie Schwartz, Director of Business and Industry Engagement, UNLV Office of Economic Development

"Coordination is important for ecosystems like ours to thrive."

—Kegan McMullan, 2022 Managing Director, Gener8tor, Las Vegas

"We simply need the public sector to step up and meet us where we are."

-Yeves Perez, CEO, Workbnb Inc.

"Las Vegas has been built to give us exactly what we have always gotten—almost last in education, talent leaving the city, and one industry that we all live or die by. Are we ready to change that? I hope so."

—Noel Hurst, Account Manager, Codingscape

"Fundraising is the hardest and most time-consuming thing a founder will have to do across the board. Most founders are completely lost and spend a year-plus distracted from the problem in the market they want to solve." —Kurt Walker, Captal

