VENTURE WINSTON GRANTS FOR STARTUPS
THE NEXT 100 STARTUPS: A BOLD PLAN TO ACCELERATE OUR ECONOMY
November 2019

The City's new economic development focus areas include "Making Winston-Salem the best place in N.C to start and grow a company" through growing Winston Starts and Flywheel, creating an aerospace innovation hub, and leveraging the global network of Venture Café to help connect startups with capital. This plan accomplishes all those goals and makes significant progress toward starting 250 thriving businesses.

We believe we need a dual strategy to achieve that milestone – stronger support for emerging and current startups in WS, and an import strategy to create density, increase sophistication levels, and attract new talent. This plan only addresses the import strategy.

SITUATION ANALYSIS:
Our current startup landscape is shallow and wide. Our three accelerators are producing fewer than 20 new scalable startups a year and our incubator is only in its second year of operations, having yet to graduate a significant number of startups from its early cohorts. Our ecosystem is still young and ill-defined – we have few truly investor-ready companies, and fewer still Series A companies. We have yet to see a successful exit.

At this point in our ecosystem's lifespan, it's time to find focus areas and declare our major. Venture Cafe WS proposes the following industry verticals that are future-focused, build on existing assets and are distinctive from other NC metro areas.

The Future of Flight: Drone management, electric vertical take off and landing vehicles (EVOTLs), and additive manufacturing represent growth opportunities for the immediate, mid and long term. With a portfolio of available megasites in the Carolina Core for additive manufacturing, open office space and land in the Innovation Quarter for software developers, controlled airspace and light traffic at the airport, and a possible new accelerator/incubator at Smith Reynolds Airport, Winston Salem has a lot to offer. Additive manufacturing is currently a $9.3 billion global market estimated to grow to $50 billion with a CAGR of 16.5% by 2030. Electric vertical

takeoff and landing vehicles represent the next wave of innovation for flight and the civilian market is expected to reach $21 billion by 2035 with a CAGR of 35% after 2025. Drones are already a hot market at $13 billion globally with expectations to hit $127 billion with a CAGR of 17.6% until 2025.

The Future of Health: The proposed merger of Wake Forest University Medical School and Atrium Health will create additional resources for research and innovation. The WF leadership team has established four sectors to grow: regenerative medicine, population health, clinical trials research and advanced analytics.

According to the Wake Forest Institute of Regenerative Medicine, there are currently four spinout companies in Winston Salem including KeraNetics and Plakous Therapeutics. KeraNetics recently merged with Massachusetts-based Microchips Biotech and Plakous completed a $500,000 seed round in 2019. The global market for regenerative medicine market is expected to grow at a significant pace throughout the forecast period. The rising preference of patients for personalized medicine and the advancements in technology are estimated to accelerate the growth of the global regenerative medicine market in the next few years. As a result, this market is likely to witness a healthy growth and attract a large number of players in the next few years. The development of novel regenerative medicine is estimated to benefit the key players and supplement the market's growth in the near future.

The global **population health management market** size is expected to reach **USD 101.0 billion by 2025**, according to a new report by Grand View Research, Inc. It is projected to register a **CAGR of 20.7%** during the forecast period. The need for population health services that combine multiple functionalities is increasing, due to the complex nature of care delivery and payment models. PHM solutions can process clinical, financial, and operational data for the improvement of efficiency and patient care. The US market will contribute $50 billion during that time.

The clinical trials market is forecast to grow to nearly $70 billion by 2026, with a CAGR of 5.7%. Key drivers impacting the market growth are globalization of clinical trials, development of new treatments such as personalized medicine, augmenting evolution in technology, and rising demand for CROs to conduct clinical trials. **There are currently 555 clinical trials in Winston Salem listed on CenterWatch.com representing $XXX in**

economic investment. In addition, local firm Clinical Ink recently secured private equity investment for majority recapitalization and growth equity investment from NovaQuest International and RTI International, based in Raleigh.

The Future of Reality: Augmented and Virtual Reality

The UNC School of the Arts runs an emerging media lab complete with production studio at the Center for Design Innovation. The METL Lab and related companies, including marketing agencies, AV production studios and VR companies, is a community asset we can build on. METL already works with leading companies including Microsoft and Google on student projects.

In 2017, the global market for virtual and augmented reality was just under $12 billion. By 2025, [researchers](#) predict the market to explode to nearly $572 billion, and astonishing 151% CAGR. The medical AR/VR market alone - a nice synergy with our future of healthcare focus - is estimated to reach $2.16 billion by 2025. Gaming is predicted to be the largest sector for AR/VR growth.

Additionally, we see **key potential synergies between aviation/aeronautics, 5G and Internet of Things (IOT) and AR/VR, creating a connected startup ecosystem** that could support future-focused technology like self-driving cars, smart cities and connected factories.

The Future of Connectivity: 5G and Internet of Things

As national carriers begin to roll out their 5G networks in pilot cities, and as sensors are embedded in more and more products, connectivity and data will revolutionize the way business decisions are made, the interactions between humans and machines, and drive increased efficiency through faster technology processing capabilities. Qorvo, located near the Greensboro airport, is a global leader in 5G components, selling more than 2000 parts which power 5G cells and connect mobile phones and other devices to wireless networks. This world-class expertise, along with two other related companies, gives us a toehold that we intend to grow into a competitive advantage.

[By 2025, the global 5G market is predicted to reach $277 billion](#) with a CAGR of 111% over that time frame. North America is expected to capture 44% of market share by 2025.

Demand will be driven by increased mobile usage, wearable devices, video streaming as well as retail, manufacturing and energy sectors.

The Future of Cybersecurity:
Forsyth Tech's cybersecurity program is one of only six community college programs in the country to be designated a Center of Academic Excellence by the National Security Agency (NSA) and Department of Homeland Security (DHS). This is the most prestigious recognition for cybersecurity a college can receive. In addition, the recent opening of the NC Center for Cybersecurity strengthens our position. The Center's goal is to "position North Carolina as a leader in cybersecurity workforce development at the community level to help existing businesses meet the global demand for a more secure supply chain." Finally, WS-based cybersecurity startup Threat Sketch has testified before federal government intelligence committees multiple times in the last two years.

In mid-October 2019, job listing platform Indeed.com returned nearly 25,000 open cybersecurity jobs, indicating a serious talent shortage and opportunity for WS to retain FTCC cybersecurity graduates, most of whom leave the area for jobs.

[Last year, the global market reached $116.5 billion and analysts expect the industry to experience an 11% CAGR through 2025.](#)

According to Grand View research, "Technologies such as [internet of things (IoT)](#) and new business models extensively rely on global digitization for their growth. As systems become more complex, interconnected, and handles more information, the exposure to attack surface becomes much broader while exposing the gaps in the security system of business. The primary platform for an increase in cybercrime activities is connectivity through the use of [Big Data](#), cloud, social media, and mobile services.

For instance, third-party data storage and cloud-based services have opened avenues for an online attack, which previously did not exist. Moreover, IoT products enabled with IP sensors are anticipated to introduce vulnerabilities to the user data, if they have not been adequately tested. Such services operate on the backbone of the internet and will become increasingly

connected over a period of next three years, allowing the need for a robust cyber security system in the business environment."

Again, this creates a strategic synergy with our focus on connectivity and Internet of Things. The proliferation of data must be securely transferred and protected.

THE GO FORWARD PLAN
We will strategically recruit startups in these sectors to quickly create emerging innovation hubs in Winston Salem. Within five years, we could have 20+ companies in each sector coming to our city, with some of them deciding to stay. If we replicate the success of the Arch Grants, we will retain 90% of recruited talent, augmenting our workforce and providing much needed tech skills to our startup ecosystem.

With increased density comes increased deal flow, and we fully expect outside investments to increase exponentially in the next five years. We would like to see at least $5 million in outside investment by 2025.

RECOMMENDATION: VENTURE WINSTON GRANTS
To create transformation, we need a tool that will deliver short term results, jobs and revenue, and attract outside investors. **We recommend the WS Alliance adopt and fund the [Arch Grants](#) model from St Louis.** Arch Grants is a nonprofit organization that is **building a new economy** by providing **$50,000 equity-free grants and pro bono support services** to entrepreneurs who locate their early-stage businesses in St. Louis. Through its competitive **Global Startup Competition**, Arch Grants retains and **attracts the most innovative entrepreneurs** to the St. Louis region, 20 per year.

The model has impressive and proven results over seven years of operations:
- Since 2012, they've **awarded over $7 million** in grants to attract and retain **more than 130 early-stage businesses** in STL.
- Received nearly **5,000 applications** from 44 states and more than 80 countries
- Created more than **1400 jobs, generated $135 million in revenue, attracted $173 million in follow-on capital**
- **74% of companies** are owned or co-owned by women, veterans, immigrants or people of color

- Companies receive **wrap-around incubator-type services** in addition to the non-equity, non-dilutive grants
- Startups are **required to locate 51% of their operations** and at least one co-founder in STL for one year – and **90% decide to stay beyond the one-year requirement**
- Arch Grants are industry-agnostic. Venture Winston Grants would **give preference to startups in our Future Business Sectors** and leave space for synergistic startups
- The Venture Winston Grants will also strongly encourage grant recipients to **give back to the WS startup ecosystem by donating 1 percent of their profits** to non-profit entrepreneurial support organizations and/or a local investment fund, creating a virtuous circle and ongoing funding source
- Arch Grants has **attracted national media to St. Louis and accelerated culture change.** What was once described as a wasteland is now widely acknowledged as a startup hub.
- Some applicants who were not awarded grants moved to St Louis anyway after learning about the high level of entrepreneurial support and affordable cost of living. **The grant application itself serves as an economic development tool by targeting promising startup founders.**
- **The Venture Winston Grants will also be available to local startups,** a lesson learned from early experience at the Arch Grants.
- Applications from are MWBE founders will be weighted heavily in selection criteria

FUNDING SOURCES:
The Arch Grants initiative is funded by Foundations, State and Global Technology Corporations, Corporate Philanthropy, Sponsors, City and State Governments, Universities and Wealthy individuals. The annual budget is $2 million, $1 million of which goes directly to the recruited startups. Other organizations like the Missouri Technology Council have made large donations and Arch Grants has a multi-million dollar endowment. You can see the donor list here.

We propose a similar public-private partnership here in WS involving the City of WS, Forsyth County, The WS Chamber of Commerce as well as private donors. Ideally, we'd like to see a 50-50 split in funding but are open to possibilities as well.

IMPLEMENTATION:
- **Venture Café WS will lead the global competition** process leveraging our global reach throughout North America, Europe, Asia Pacific and Australia.
- **Winston Starts can lead the incubator/support services** with their established list of experts and mentors. Startups can be housed at Winston Starts and/or an airport-based aviation incubator called HangarOne.
- **WS Chamber of Commerce** will house and administer the grants through their non-profit foundation, ensuring all donations are fully tax deductible.
- **Flywheel** will provide accelerator leadership and support at HangarOne, the proposed aviation incubator at Smith Reynolds Airport.
- **Center for Creative Economy and UNCSA** can be additional resources for AR/VR startups
- **Wake Forest Innovations** can provide additional support for healthcare startups
- **Qorvo** can provide support for connectivity and Internet of Things
- **Forsyth Tech and NC Center for Cybersecurity** can partner on cybersecurity startup support

RESOURCES NEEDED:
We are looking for a **five-year commitment of $7.5 million** to run five years as a prototype for 100 startups

$1 million/year in grants to startups
$580k/year to run competition to VCWS and Winston Starts (estimated)

POTENTIAL FUNDING SOURCES:
We believe this effort should be a public-private partnership. We have identified several local, state and national public funding sources for this program. This is a work in progress and therefore an incomplete list. We have already started the process with leaders from both the City of WS and Forsyth County as well as NC Economic Development sources. In addition, we will, or already have, reached out to several foundations for their support.

In addition, as part of the agreement, startups will commit to reinvest in the WS ecosystem once they hit certain milestones. We will include a provision in the contract asking them to reinvest 1 percent of their profits to provide an ongoing funding pool for entrepreneurial support organizations in the area.