LDFA REPORT 2019 - 2020 ANN ARBOR/YPSILANTI SMARTZONE



158 COMPANIES SERVED

OO JOBS CREATED

12 COMPANIES CREATED

\$12M FUNDS RAISED INVESTMENTS & GRANTS

\$322K DIRECT SUPPORT



Ann Arbor SPARK will advance the economy of the Ann Arbor region by establishing it as a desired place for innovation, business location and growth, and for talented people to live and work. The Ann Arbor region will be recognized for its academic, business, and community resources, and its collaborative culture. For more information visit: www.annarborusa.org

Mobility Innovation Thrives in Ann Arbor, Michigan

With the recent news that TechStars Detroit is shuttering its accelerator (which initially launched dedicated to mobility startups), some have suggested that investment and interest in mobility innovation are waning. In Ann Arbor, Michigan our experience has been the opposite. Mobility remains a hot topic with many of our clients creating products and services in this multifaceted sector.

Currently, Ann Arbor SPARK tracks 225 mobility-related companies in the greater Ann Arbor region. Additionally, in the past five years, SPARK held conversations with 29 companies from 12 international countries, further acknowledging that Ann Arbor is a key player on the global stage when it comes to attracting and retaining mobility companies to the region. One such example is Autaza which provides industrial quality control using computer vision and artificial intelligence. Headquartered in Brazil, Autaza used Ann Arbor SPARK's business accelerator as a soft-landing space when opening its U.S. subsidiary in April 2019. Read the full article.

In a related story, Ann Arbor SPARK's Komal Doshi was invited to join an international panel of judges for the <u>Toyota Mobility Foundation City Architecture for Tomorrow Challenge</u>. As the only judge from the United States, it is an incredible honor to have Komal selected.

Genomenon Named 2020 Genomics Company of the Year by Frost & Sullivan for Advancing Clinical Genomics Interpretation and Personalized Medicine

"Powered by its proprietary Genomic Language Processing™ algorithm and genomic literature database, Mastermind by Genomenon has emerged a



leading automated disease-gene-variant association database," said Christi Bird, Principal Consultant at Frost & Sullivan. "Unlike other commercially available tools, the first-in-class genomic database search engine enables full articles and supplemental datasets searches across the genomic literature—allowing geneticists, molecular pathologists, and researchers to identify disease-causing variants from genomic-sequencing datasets quickly and accurately."

As an Ann Arbor SPARK client, Genomenon benefited from SPARK's business accelerator grants supported by the Ann Arbor/Ypsilanti SmartZone Local Development Finance Authority (LDFA). These grants helped cover the costs of legal and marketing services, plus connected the company to Eastern Michigan University's Digital Engagement Clinic summer internship program. In 2015, the Michigan Angel Fund became a Genomenon seed fund investor and three years later participated in the company's 2018 Series A extension. Read the full article.

Ann Arbor-Ypsilanti SmartZone Local Development Finance Authority

Ann Arbor SPARK Quarterly Report: January 1, 2020 – March 31, 2020

Business Accelerator Intake - Phase I



Companies Created

The following companies were created this quarter per the definition listed in the glossary:

Uniq ID	Company Description
12093	Immuno-isolating capsule that promotes the function of implanted ovarian tissue, protects it from immune rejection, and aims to restore ovarian endocrine function in adolescent girls.
12040	Performance disposable instrument used in cardiac bypass surgery.
12125	Home health care management application for caregivers.
12082	A human-safe germicidal light that achieves rapid sanitation without water, soap, or waste.
11966	Accurately putt using this golf putting aide technology.
11978U	A data service company that provides analysis and forward-looking recommendations based on existing small restaurant's data through data-driven algorithms.
12090	A sensor, cloud-based data management and analytics system application component for athlete's interaction and communication.

Uniq ID	Company Description
11864	Mobile application that allows constituents to contact their local, state, and federal public officials.
11943	UVC light and ozone treatment laundry unit and hands.
11977	Interactive headphones that allow the user to unlock or send macros to their devices.
12129	Uses data signals and historical patterns to provide a high accuracy labor demand forecast and prescribe optimized scheduling to yield reduced labor expense without compromising service quality.
11862	A mobile application delivering cognitive behavioral therapy to the hands of the people who need it most.
	Total (12 Companies)

Business Acceleration

Companies in the below tables are marked with the following codes:

M = Mobility company

Y = Ypsilanti company

U = University affiliated

The following companies were evaluated through [Phase II] Due Diligence:

Uniq ID	Company Description	FTEs	Billed Support
11120U	Cross-MBA trips for students from several universities before their MBA program begins.	2	\$300.00
11367	Software for school exit loan counseling guidance process.	3	\$1,000.00
	Total (2 Companies)	5	\$1,300.00

The following companies received [Phase III] Business Acceleration Grant support:

Company Description	Project Description	FTEs	Billed Support
233		1	\$8,861.84
Treatment for the antibiotic- resistant intestinal disease known as Clostridium difficile.	Production of recombinant secretory component by the U-M high throughput protein lab.	1	\$4,285.34
	Prepare test article for animal testing.	1	\$1,457.50
	Research related to developing a treatment for the antibiotic-resistant intestinal disease link to clostridium difficile infection.	1	\$930.00
	Research related to developing a treatment for the antibiotic-resistant intestinal disease link to Clostridium difficile infection.	1	\$232.50
	Prepare recombinant secretory component.	1	\$1,956.50

Company Description	Project Description	FTEs	Billed Support
11105		3	\$10,236.91
Do it yourself financial planning in a digital platform.	Customer service agreement, financial institutions template, non-financial institutions template, partnership agreement with Customer 3 ("LDF"), equity incentive plan, and capital raise documentation for second round.	3	\$881.00
	Revisions to customer service agreement and financial institutions template.	3	\$521.50
	Integration with quovo, PDF share feature, iOS feature question built out, iOS calculator feature, and android prelim built.	3	\$8,000.00
	Revisions to customer service agreement and financial institutions template.	3	\$834.41
11120U		2	\$1,796.99
Cross-MBA trips for students from several universities before their MBA program begins.	Website design and payment processing.	2	\$1,796.99
11147		1.5	\$3,470.00
Autonomous drone designed to find a person overboard and to let them know that help is coming.	Marketing consulting and comprehensive competitive analysis.	1.5	\$1,000.00
C	Legal services.	1.5	\$470.00
	Marketing consulting and comprehensive competitive analysis.	1.5	\$1,000.00
	Marketing consulting and comprehensive competitive analysis.	1.5	\$1,000.00
11172Y		1	\$985.00
Pharmaceutical to treat NASH and vascular anomalies.	Research proper tax compliance for the Japanese and U.S. entities.	1	\$985.00
11212Y		2	\$2,968.66
A personal loan assistant that simplifies terms and guides students through lowering their aid package and automatically paying interest while in school.	Foundation package with copy editing.	2	\$1,084.33
	Contracts and terms and conditions engagement.	2	\$800.00
	Foundation package with copy editing.	2	\$1,084.33
11252MY		1	\$1,100.00
Two wheeled 'series hybrid' for developing markets.	Website design and branding.	1	\$1,100.00
11310		1	\$67.50
Continuous, non-invasive, wearable blood pressure monitoring device.	Equity financing and Delaware conversion.	1	\$67.50
11312Y		1	\$335.00
Decentralized cryptocurrency exchange.	LLC formation package, terms and conditions for website, trademark filing, and non-disclosure agreement.	1	\$335.00

Company Description	Project Description	FTEs	Billed Support
11324M		3.5	\$8,017.00
Human behavior prediction using artificial intelligence.	Provisional patent application and trademarking.	3.5	\$3,112.50
	Attorney and client discussion.	3.5	\$1,155.00
	Provisional patent application and trademarking.	3.5	\$2,349.50
	Documentation for issuing convertible notes and to convert the company to a Delaware corporation.	3.5	\$1,062.00
	Provisional patent application and trademarking.	3.5	\$338.00
11344		4.5	\$1,856.10
Algorithmic water beta platform to directly price and index water risk in financial portfolios.	C Corp conversion, term sheet development for seed round, external advisor agreements, and key partner due diligence.	4.5	\$1,856.10
11353		1	\$1,658.75
Low-cost full-page tactile display for blind people that would enable true digital access to tactile information.	Contractor agreement, employee agreement, internship agreement, review research agreement, and form a customer agreement.	1	\$1,658.75
11376		11	\$10,000.00
Analytics-ready data sets from various government departments at the municipal, county, state, and federal levels.	Strategic advice concerning legislation, regulations, public policy, electoral politics and other matters with the City of Chicago.	11	\$5,000.00
	Strategic advice concerning legislation, regulations, public policy, electoral politics and other matters with the City of Chicago.	11	\$5,000.00
11540MU		2	\$5,000.00
Manufacture and sell steel fiber for Ultrahigh Performance Concrete (UHPC).	Logo design, branding, collateral design, and website design.	2	\$5,000.00
11541M		1	\$3,000.00
SaaS platform which allows authenticated revenue generating subscriptions to smart road services.	Strategic guidance, contract negotiations, and developing open network framework.	1	\$3,000.00
11562		5	\$390.00
A national online employment solution for academics seeking research opportunities and labs who need to hire the best talent.	Logo creation.	5	\$390.00
11606Y		2.5	\$1,250.00
An exploration application that allows users to collect locations and attractions visited and be presented in the style of a fun game that lets user earn points, level up in eight different categories, and achieve milestones.	Create slide deck and business card.	2.5	\$1,250.00

Company Description	Project Description	FTEs	Billed Support
Improved visual data representation for storage and	Web design and development. SEO strategic consulting and	12	\$10,000.00 \$10,000.00
data curation. 11661M	optimization.	1	\$800.00
Industry 4.0, smart inspection for manufacturing.	Corporate training program and effective sales presentation.	1	\$100.00
To manufacturing.	Corporate training program and effective sales presentation.	1	\$400.00
	Corporate training program and effective sales presentation.	1	\$300.00
11708		1	\$9,360.00
An automation software company that has software algorithm that doubles the speed of 3D printers via vibration compensation.	Marketing services.	1	\$9,360.00
11737U		0.5	\$6,075.00
Pharmaceutical material and genetic analysis technology.	Clearance searches for treatment of Grave's disease and general patent representation.	0.5	\$5,175.00
	Clearance searches for treatment of Grave's disease and general patent representation.	0.5	\$112.50
	Clearance searches for treatment of Grave's disease and general patent representation.	0.5	\$112.50
	Clearance searches for treatment of Grave's disease and general patent representation.	0.5	\$675.00
11753M		11	\$10,000.00
Build and deploy robotic platforms for providing safe and scalable last mile goods delivery in urban areas.	Software application development.	11	\$5,850.00
	Software application development.	11	\$4,150.00
11791		1	\$762.50
Addresses disruptive CO2 emissions convert into hydrocarbon fuels.	Legal services.	1	\$762.50
11807UY		2	\$1,193.75
A medical device to treat atherosclerotic calcified plaque (CP) indicated for peripheral artery disease (PAD).	Corporate formation, licensing from U-M's office of Tech Transfer, and counseling.	2	\$185.00
	Corporate formation, licensing from U-M's office of Tech Transfer, and counseling.	2	\$480.00
	Corporate formation, licensing from U-M's office of Tech Transfer, and counseling.	2	\$528.75
11850		2	\$2,123.75
A cloud based robo-advisory platform for commodity hedging.	Review NDA and partnership agreements.	2	\$1,000.00
neuging.	Review NDA and partnership agreements.	2	\$763.75

Company Description	Project Description	FTEs	Billed Support
	Review NDA and partnership agreements.	2	\$360.00
11859		1	\$4,500.00
Helps companies make employee decisions connecting and analyzing disparate sets of data, particularly from employee surveys and human resources information technology systems.	Operating agreement, equity, employment, consulting, IP agreement, and MSA.	1	\$4,500.00
11862		5	\$2,000.00
A mobile application delivering cognitive behavioral therapy to the hands of the people who need it most.	Company formation and employment agreement.	5	\$2,000.00
11944M		2	\$7,974.50
Application showing the most fuel-efficient and fastest route to a desired destination.	Website development and graphics.	2	\$3,987.00
	Website development and graphics.	2	\$600.00
	Brand messaging and website copy.	2	\$2,000.00
	Website development and graphics.	2	\$768.75
	Website development and graphics.	2	\$618.75
11966		2	\$7,450.00
Accurately putt using this golf putting aide technology.	Supply chain management, prototype, package tracking, and setup reordering system online.	2	\$6,000.00
	Revise equity grant and governance documents.	2	\$1,450.00
11978U		4	\$3,900.00
A data service company that provides analysis and forward-looking recommendations based on existing small restaurant's data through data-driven algorithms.	Legal formation, trademark, and customer agreement.	4	\$3,100.00
	Legal formation, trademark, and customer agreement.	4	\$800.00
11979		1	\$1,650.00
A personalized chat bot that helps moms cultivate resilience through pregnancy and postpartum depression.	Product development.	1	\$1,000.00
	Product development.	1	\$450.00
	Create a Google spreadsheet with anonymized, aggregated text response data.	1	\$200.00
12040		2.5	\$2,000.00
Performance disposable instrument used in cardiac bypass surgery.	Contract with board members, consulting services agreement, financing assistance, and beta test agreement.	2.5	\$2,000.00
12082		1	\$5,675.00
A human-safe germicidal light that achieves rapid sanitation without water, soap, or waste.	Regulatory direction, audit and product design, product intellectual property, and business strategy consulting.	1	\$3,200.00

Company Description	Project Description	FTEs	Billed Support
	Design review documentation, CAD models, and detail drawings.	1	\$2,475.00
12098		3	\$487.50
Indoor positioning technology to provide traffic control and logistics support for hospitals and healthcare systems.	Website design and development.	3	\$487.50
12107U		0.5	\$556.25
Software and services for patient-specific cardiovascular simulation.	Formation and out license of technology.	0.5	\$556.25
12129		1	\$1,000.00
Uses data signals and historical patterns to provide a high accuracy labor demand forecast and prescribe optimized scheduling to yield reduced labor expense without compromising service quality.	Legal formation.	1	\$1,000.00
4341M		3	\$1,355.00
Scheduling and dispatch solutions for rural transit systems.	Creative, technical, and project management services.	3	\$1,355.00
6835M		19	\$1,704.50
Combustion cycle and injection technology.	Outfitting new building.	19	\$1,704.50
7194M		10	\$450.00
Transporting supplies for rural healthcare via UAV.	Marketing brochure design.	10	\$450.00
7531UY		2.5	\$3,485.75
Lactation simulation model and a breastfeeding education application.	Video marketing and production prep for social media, website, and email rollout.	2.5	\$260.00
	Data analysis, correspondence, and manuscript preparation.	2.5	\$360.00
	Data analysis and manuscript writing.	2.5	\$432.00
	Digital marketing and development services.	2.5	\$648.75
	Data analysis, correspondence, and manuscript preparation.	2.5	\$255.00
	Digital marketing and development services.	2.5	\$1,530.00
7625U		5	\$4,500.00
An enzyme-linked immunosorbent assay (ELISA) used in technology for biological and biomedical research, pharmaceuticals, and clinics.	QMS system preparation.	5	\$4,500.00
7704U		1.5	\$2,671.65
Computer vision-based phone or tablet-based application for construction workers' safety and ergonomics monitoring and analysis.	Stock option plan, convertible documentation, C corporation switch, and related investor negotiations.	1.5	\$2,160.00

Company Description	Project Description	FTEs	Billed Support
	Stock option plan, convertible documentation, C corporation switch, and related investor negotiations.	1.5	\$511.65
8189M		7	\$1,650.00
UAVs to detect methane at solid waste landfills.	Brand identity design and commercial video production.	7	\$1,650.00
8255Y		4	\$2,000.00
Communications software for business-to-business or business-to-consumer.	Creating a design atmosphere for the front end in a modular way that will allow the company to grow and iterate seamlessly without having a design cost of the front end falling behind.	4	\$2,000.00
8293MU		2	\$940.00
Low-cost high-accuracy micro electromechanical system (MEMS) gyroscope for space, aviation, and underwater applications.	Website and branding design.	2	\$940.00
8380		4	\$1,500.00
Secure tele-pathology platform for digital microscopy.	Financial consulting and support for converting from an LLC to C Corp. Financial projections for open source pivot, including NIH forecasts.	4	\$1,500.00
8393		1	\$3,547.58
Business-to-business marketplace where businesses can easily find quality information technology professionals.	Client on-boarding, initiate digital strategy, and continue to expand marketing campaign.	1	\$900.00
	Client on-boarding, initiate digital strategy, and continue to expand marketing campaign.	1	\$650.00
	Client on-boarding, initiate digital strategy, and continue to expand marketing campaign.	1	\$650.00
	Lead to new client pipeline.	1	\$1,347.58
8419M		4	\$500.00
Next-generation freight marketplace focused on better user experience, lower freight costs, and regulatory compliance.	Branding and design of presentation.	4	\$500.00
8434		0.5	\$4,475.00
Instruments for single molecule detection of DNA, RNA, and proteins.	Financial modeling and intellectual property summary.	0.5	\$3,600.00
	Investment documentation and potential out-license intellectual property.	0.5	\$875.00
8591		1	\$4,000.00
Compliance training SaaS platform, primarily focused on safety and security issues, in particular, workplace violence ("WPV") prevention and active shooter preparedness.	Generate 10-15 qualified leads per month.	1	\$2,000.00

Company Description	Project Description	FTEs	Billed Support
	Generate 10-15 qualified leads per month.	1	\$2,000.00
8636		2	\$24,711.25
Guided meditation and respiratory biofeedback application.	Legal support for fundraising.	2	\$930.00
	Video production.	2	\$6,750.00
	Marketing strategy and tools.	2	\$4,000.00
	Marketing strategy and tools.	2	\$4,750.00
	Legal support for fundraising.	2	\$76.25
	Patent application.	2	\$4,955.00
	Marketing strategy and tools.	2	\$3,250.00
8645		2	\$700.00
Personal protection modular system which will protect a person from pistol shots, knife attacks, and tasers.	Provisional patent application.	2	\$700.00
8658		3	\$997.00
Builds and hosts complete, professionally designed, mobile-responsive websites.	Move prospects from Facebook to website.	3	\$997.00
8769		1	\$3,500.00
Automated legal document generation software.	Patent services and strategy proposal.	1	\$3,500.00
8777U		7	\$3,000.00
Low cost, research-based program designed to enrich people's lives and reduce psychological distress.	Assist with finding additional talent, help to create a robust sales and customer success process, assist with fundraising efforts, and provide assistance with scaling both the customer based as well as operations.	7	\$2,000.00
	Mentorship and guidance.	7	\$1,000.00
8797		10	\$1,200.00
Off-the-shelf machine learning applications.	Design and develop a custom landing page.	10	\$1,200.00
8862		1	\$717.50
Mobile learning platforms to help young people combat sexual violence and misconduct.	Intellectual property and trademarking.	1	\$717.50
8919		2	\$1,054.02
Application and computational methods for the analyses of speech to assess and predict mood states in bipolar disorder.	Licensing, conflict of interest management assistance, and data sharing agreement advise and revision.	2	\$1,054.02
9923		2	\$675.00
Software platform that makes augmented reality and virtual reality enterprise content creation and publishing super easy.	Development and production of content marking with measurables.	2	\$193.75

Company Description	Project Description	FTEs	Billed Support
	Website creation, social media graphics bundle, industry sales sheets, and online ads.	2	\$481.25
Total (59 Companies)		192	\$207,836.25

Talent Programs

Entrepreneur-In-Residence Program

This quarter, 14 companies utilized the entrepreneur-in-residence program. This program is designed to attract and retain C-level individuals in the community by leveraging their talent and experience to add substantial value to client companies.

Uniq ID	Company Description	FTEs	Billed Support
6828U	Software for the analysis of genetic data.	6	\$3,500.00
8636	Guided meditation and respiratory biofeedback application.	2	\$3,200.00
8457	A music technology company that provides 24/7 self-service music rehearsal and electronic production rooms studio space.	0.5	\$10,500.00
11324M	Human behavior prediction using artificial intelligence.	3.5	\$4,000.00
11635	A one-stop shop where customers can purchase all of their nightlife products in one place.	6	\$11,000.00
8132	DNA and bioinformatics analysis and collaboration platform.	3	\$3,125.00
8806	Turnkey passive home entry module.	5	\$11,774.50
7674	Platform of sensors, software, and analytics that harvest key data from manufacturing machines, processes, people, and translate it to actionable intelligence.	3	\$2,900.00
12082	A human-safe germicidal light that achieves rapid sanitation without water, soap, or waste.	1	\$2,000.00
11770	A revolutionary way of buying, selling, investing and managing commercial real estate.	2	\$1,925.00
8384	An application and cloud service to connect dietitians and their clients for efficient, timely interaction.	2	\$2,500.00
8797	Off-the-shelf machine learning applications.	10	\$8,000.00
11399	Non-thermal plasma devices that prevent airborne transmission of infectious diseases to and from livestock.	3	\$9,200.00
11862	A mobile application delivering cognitive behavioral therapy to the hands of the people who need it most.	5	\$62.50
	Total (14 Companies)	52	\$73,687.00

Intern Matching Funds Program

The Ann Arbor SPARK internship program provides up to \$3,000 of matching funds to a qualified, growing company to support a three-month intern. This frees up additional funds for other purposes and provides a de-risked way to try out a potential permanent addition to the team - an opportunity that is invaluable during the pivotal period of initial hires. Often the talent is retained at the company after the matched period ends. Special consideration is given to applicants who are considering moving to Ann Arbor and Ypsilanti from another tech hub or have skillsets in high demand. While originally conceived as a summer program, it continues to meet the needs of startups year-round. Any amount invoiced or billed above the matching amount is paid in part by the client.

Uniq ID	Company Description	FTEs	Billed Support
8255	Communications software for business-to-business or business-to-customer.	4	\$2,428.80
7374	Augmented reality application for immersive digital experiences based on children's books.	5	\$2,333.77
9923	Software platform that makes augmented reality and virtual reality enterprise content creation and publishing super easy.	2	\$392.40
8393	Business-to-business marketplace where businesses can easily find quality information technology professionals.	1	\$425.04
7796	Mobile game developer.	4	\$736.23
7940M	Engine technology uses a helical drive to convert the linear motion of a piston into rotary motion.	3	\$1,540.00
7531U	Lactation simulation model and a breastfeeding education application.	2.5	\$1,800.00
4341M	Scheduling and dispatch solutions for rural transit systems.	3	\$1,092.96
11988	Scalable smart camera system that captures all objects in any sports scene, including players and officials from multiple points of view including 3-D motion.	1	\$672.32
11367	Software for school exit loan counseling guidance process.	3	\$2,542.65
11335M	Method to evaluate the safety of an autonomous vehicle.	1	\$1,255.98
11606	An exploration application that allows users to collect locations and attractions visited and be presented in the style of a fun game that lets user earn points, level up in eight different categories, and achieve milestones.	2.5	\$1,822.38
	Total (12 Companies)	32	\$17,042.53

Boot Camp

None during this quarter.

Digital Engagement Clinic

Uniq ID	Intern Description	Billed Support
11587	DEC social media intern.	\$690.69
11587	DEC Alumni Reconnect Project.	\$1,996.17
11587	Field marketing.	\$2,808.30
11998	DEC social media intern.	\$1,388.97
	Total (4 Interns)	\$6,884.13

SPARK Central Innovation Center

Lower Level

Incubator clients are charged a license fee per seat, or person(s) using the space. Exit dates may have passed as some clients have a month-to-month arrangement.

Virtual Clients

The Virtual Client program at SPARK Central is ideal for those who need drop-in co-working space and amenities at an affordable rate, with month-to-month terms. Some examples are the earliest "investigative stage" founders looking to network and validate their concept, companies at a later stage of growth who want to remain plugged into the core of the entrepreneurial community, or community partners who leverage the location and flexibility this option allows.

Third Floor

The third-floor incubator space is composed of a shared open office environment and two smaller offices complete with a kitchen, conference rooms, phone booths, and controlled entry. Due to the open layout of the space, clients are free to expand as needed while "seats" only correspond to their billed rate. This model is designed for the stage of company building their strategy, product, and team after attaining investment or revenue.

Fourth Floor

The 6,000 square foot space is ideal for growth stage companies that are either grown in-house or moving to the area. This workspace has space for over 60 people.

SPARK East Innovation Center

Virtual Clients

The Virtual Client program at SPARK East is ideal for those who need drop-in co-working space and amenities at an affordable rate, with month-to-month terms. Some examples are the earliest "investigative stage" founders looking to network and validate their concept, companies at a later stage of growth who want to remain plugged into the core of the entrepreneurial community, or mission-aligned community partners who leverage the location and flexibility this option allows.

Seated Clients

Incubator clients at SPARK East have designated workspaces, and access to the facility 24/7. They are able to use conference rooms and flex spaces freely to have working sessions with remote staff or host client meetings and events.

Uniq ID	Company Description	Start Date	Exit Date	Seats	FTEs
SPARK Ce	entral - Lower Level Designated Desk			11	16
11701	Mobile application for autonomous vehicles and pedestrians to help avoid collisions.	8/1/19	1/31/20	1	1
8631	Productizing marketing growth tools.	11/1/19	4/30/20	2	2
8419	Next-generation freight marketplace focused on better user experience, lower freight costs, and regulatory compliance. 10/11/19 10/10/20		3	4	
5634	Multi-sided reviews platform that allows users and restaurants to discover and engage each other.	6/1/17	11/30/17	2	4
11865	Ad tech platform that makes local advertising faster, less expensive, and more accountable.	10/11/19	10/10/20	1	3
11864	Mobile application that allows constituents to contact their local, state, and federal public officials.	12/1/19	6/4/20	1	1
11373	Software development studio with a focus on digital games, entertainment, and tools.	10/15/18	4/15/19	1	1
SPARK Ce	entral - Lower Level Flex Desk			3	13.5
7754	Sensors and measurement devices for electromagnetic radiation enabling essential technologies.	2/25/20	8/25/20	1	7
8776	Custom computing solutions for genomics applications.	11/6/19	5/5/20	1	5.5
8143	Secure vehicle data harvesting product.	11/1/18	4/30/19	1	1
SPARK Ce	entral - Virtual Desk			0	126
8778	Portable oxygen concentration device.	10/1/18	3/31/19	-	1
8364	Programming language for Computer Numeric Control manufacturing.	6/1/18	10/31/18	-	2
6545	Software platform applies predictive analytics to strategic decisions regarding intellectual property management.	2/1/17	7/31/17	-	2.5
9923	Software platform that makes augmented reality and virtual reality enterprise content creation and publishing super easy.	5/23/19	11/23/19	-	2
11164	Low cost capnography device with continuous remote-monitoring capabilities to improve outcomes and lower the cost of care for cardio-respiratory patients.	7/23/19	1/23/20	-	5
12040	Performance disposable instrument used in cardiac bypass surgery.	2/5/20	8/5/20	-	2.5
11310	Continuous, non-invasive, wearable blood pressure monitoring device.	9/1/19	9/1/20	-	1
8769	Automated legal document generation software.	8/1/19	1/31/20	-	1
7982	Drug discovery SaaS product.	1/1/19	6/30/19	-	5
11954	A platform uses progressive web application technology to help pain sufferers navigate a variety of options to better manage pain through self-management and related resources.	1/1/20	6/30/20	-	4.5
8774	V2X software to make roads and vehicle-to-everything interactions safer. $ \\$	1/15/18	7/16/18	-	2
8534	New chemical entity to treat Metabolic Syndrome and Type II diabetes.	7/1/17	12/31/17	-	2

Uniq ID	Company Description	Start Date	Exit Date	Seats	FTEs
8862	Mobile learning platforms to help young people combat sexual violence and misconduct.	3/1/18	8/31/18	-	1
8393	Business-to-business marketplace where businesses can easily find quality information technology professionals.	7/15/17	7/15/18	-	1
11540	Manufacture and sell steel fiber for Ultrahigh Performance Concrete (UHPC).	5/2/19	11/2/19	-	2
11918	Health management platform connecting patients, providers and caregivers to effectively manage patients with chronic conditions.	11/7/19	5/6/20	-	2
7336	Supply chain software.	10/1/19	9/30/20	-	15
11900	MetTech intelligence that produces connected vehicle sensor data for improved road safety, improved weather forecasting, and for monetization of data for owners.	10/23/19	10/22/20	-	2
8789	Digital health platform that assists patients in navigating through the complex processes before and after surgery.	4/15/18	10/31/18	-	2
11560	A subscription platform giving entertainers and bands with large fan bases an outlet to share original content with paying subscribers.	2/1/20	7/31/20	-	2
11105	Do it yourself financial planning in a digital platform.	5/1/18	11/30/18	-	3
9936	Disposable oxygenating technology that can be integrated into existing dressings and therapies.	3/1/18	7/31/18	-	3.5
11895	A cloud-based platform that enables automotive companies to effectively manage their pre-production operations, meet customer requirements and collaborate with suppliers in a single platform.	2/15/20	8/15/20	-	3
11966	Accurately putt using this golf putting aide technology.	2/5/20	8/5/20	-	2
8609	Quotation Lifecycle Management (QLM) applications focused on managing the interaction between our customer companies and their customers and suppliers.	10/1/17	3/31/18	-	1
8384	Application and cloud service to connect dietitians and their clients for efficient, timely interaction.	7/1/17	12/31/17	-	2
11838	Helps to protect the athlete through a neuromuscular training methodology that immediately provides a player and coach the ability to identify, correct, or incorrect form at the point of contact.	2/3/20	8/3/20	-	2
6600	Medical device for vision enhancement in persons with partial loss of sight.	6/1/13	12/31/16	-	2
11335	Method to evaluate the safety of an autonomous vehicle.	6/25/19	12/25/19	-	1
8645	Personal protection modular system which will protect a person from pistol shots, knife attacks, and tasers.	10/1/17	3/31/18	-	2
11541	SaaS platform which allows authenticated revenue generating subscriptions to smart road services.	10/25/19	10/24/20	-	1
7777	SaaS enabled ride-sharing platform.	5/1/16	10/31/16	-	14
12090	A sensor, cloud-based data management and analytics system application component for athlete's interaction and communication.	2/6/20	8/6/20	-	1

Uniq ID	Company Description	Start Date	Exit Date	Seats	FTEs
8591	Compliance training SaaS platform, primarily focused on safety and security issues, in particular, workplace violence ("WPV") 7/19/17 1/18/18 prevention, and active shooter preparedness.		-	1	
8323	System for recording, displaying and interpreting human eye movements, and a method for recognizing emotional reactions to 12/15/16 2/1/19 visual content.				
12129	Uses data signals and historical patterns to provide a high accuracy labor demand forecast and prescribe optimized scheduling to yield 3/11/20 9/11/20 reduced labor expense without compromising service quality.		-	1	
11850	A cloud based robo-advisory platform for commodity hedging.	9/20/19	9/19/20	-	2
SPARK Ce	entral - Lower Level Suite			8	8
2203	Online furniture inventory management that allows targeted retailer interaction.	10/1/19	9/30/20	8	8
SPARK Ce	entral - 3rd Floor Suite			19	18.5
8521	A SaaS platform enabling healthcare providers to better understand their potential patient's decision patterns, language and preferences.	10/1/19	9/30/20	3	3.5
8806	Turnkey passive home entry module.	10/1/19	9/30/21	6	5
8797	Off-the-shelf machine learning applications.	7/26/19	7/25/20	10	10
SPARK Ce	ntral - 4th Floor Designated Desk			53	112
4519	Platform giving independent application publishers technology for customized native ads and access to advertisers.	2/5/20	2/26/20	20	24
4803	An intuitive integrated display that retrieves medical data.	4/29/19	10/29/19	6	6
11661	Industry 4.0, smart inspection for manufacturing.	3/1/19	8/31/19	1	1
8116	Social media listening and analysis software utilizing machine learning.	6/1/19	1/31/20	8	9
11662	Automation company and custom panel build industry.	9/9/19	3/20/20	1	35
8588	An investment vehicle to purchase a small business.	8/1/17	1/31/18	1	1
11476	Postmodern ERP, enabling businesses to run more efficiently and eliminate wasteful activities.	3/18/20	9/18/20	1	1
8050	Employee engagement SaaS application.	12/1/17	5/31/18	5	12
11324	Human behavior prediction using artificial intelligence.	5/15/19	11/15/19	1	3.5
11738	Protects the shipment of business-to-business parcels via its IoT-enabled, reusable, traceable, and secure packaging solution.	9/27/19	9/26/20	1	3
10190	Visual recognition and machine learning technology utilizes a knowledge base that correlates body shape and proportion to silhouette and design to automatically curating clothing assortments into custom boutiques built for each shopper's shape and proportion.	6/1/18	12/31/18	2	7.5
8189	UAVs to detect methane at solid waste landfills.	2/1/20	5/31/20	4	7
11866	Platform that makes it easy to create and deploy web applications at scale.	9/19/19	9/18/20	1	1
11977	Interactive headphones that allow the user to unlock or send macros to their devices.	1/22/20	4/30/20	1	1

Uniq ID	Company Description	Start Date	Exit Date	Seats	FTEs
SPARK Ce	ntral - 4th Floor Flex Desk			2	25
11635	A one-stop shop where customers can purchase all of their nightlife products in one place.	1/13/20	7/12/20	1	6
6835	Combustion cycle and injection technology.	3/6/20	9/6/20	1	19
SPARK Ea	st - Designated Desk			6	4
8912	Strategic marketing communications agency.	7/17/19	1/17/20	4	1
11807	A medical device to treat atherosclerotic Calcified Plaque (CP) indicated for Peripheral Artery Disease (PAD).	8/27/19	8/26/20	1	2
11953	Test technology for color measurement in paint for quality control.	1/1/20	12/31/20	1	1
SPARK Ea	st - Flex Desk			6	10
8255	Communications software for business-to-business or business-to-consumer.	6/14/19	12/14/19	1	4
11172	Pharmaceutical to treat NASH and Vascular anomalies.	11/1/18	4/30/19	1	1
8636	Guided meditation and respiratory biofeedback application.	6/18/19	6/17/20	1	2
11905	An algorithm engine and platform that provides organizations with the ability to scale and commercialize their algorithms while protecting their intellectual property.	1/15/20	7/15/20	1	1
11212	A personal loan assistant that simplifies terms and guides students through lowering their aid package and automatically paying interest while in school.	3/1/20	5/31/20	2	2
SPARK Ea	st - Virtual Desk			0	35.5
11723	A vibrating seat belt strap designed to prevent people from falling asleep while driving.	9/24/19	9/23/20	-	3
3965	Window products that let air in but keep the rain out.	12/1/17	12/31/18	-	1
11672	Reduce childhood obesity by developing a classroom fitness application.	6/1/19	12/1/19	-	1
11252	Two wheeled 'series hybrid' for developing markets.	3/21/19	9/21/19	-	1
8457	A music technology company that provides 24/7 self-service music rehearsal and electronic production rooms studio space.	11/1/19	10/31/19	-	0.5
8366	Physiological performance data analytics company.	10/10/19	1/9/20	-	1
11880	In-application music discovery competitions that reward listeners for competing and discovering new music.	10/29/19	4/28/20	-	0.5
3549	Disposable patient lifting system.	9/7/10	3/31/16	-	3
7531	Lactation simulation model and a breastfeeding education application.	9/10/19	9/9/20	-	3
8885	Streetwear clothing company.	3/1/18	8/30/18	-	3
6977	Human capital management software optimizing hiring, evaluations, and workflows for education and healthcare.	10/24/18	8/26/19	-	2
8132	DNA and bioinformatics analysis and collaboration platform.	6/27/19	12/27/19	-	3
11967	Enhance the investment performance of institutional investors through the best execution of securities finance.	1/13/20	7/13/20	-	1
11770	A revolutionary way of buying, selling, investing, and managing commercial real estate.	1/6/20	7/5/20	-	2
5604	Online language learning platform.	8/9/19	1/31/20	-	1
11312	Decentralized cryptocurrency exchange.	9/1/18	12/31/18	-	1

Uniq ID	Company Description	Start Date	Exit Date	Seats	FTEs
11985	Self-contained, pre-engineered and pre-configured, mobile, solar nano grids with a variety of solutions inside the nano grids.	1/13/20	7/13/20	-	5
11831	Provides chronic pain specialists with quantitative evaluations on treatment performance to help optimize the long-term care of patients.	11/1/19	10/31/20	-	1
11606	An exploration application that allows users to collect locations and attractions visited and be presented in the style of a fun game that lets user earn points, level up in eight different categories, and achieve milestones.	5/1/19	11/1/19	-	2.5
SPARK Ea	st - Suite			18	18
7591	Talent consultants, human resource experts, and matchmakers focused on supporting Michigan companies and communities with their talent needs.	6/1/19	12/1/19	8	8
7940	Engine technology uses a helical drive to convert the linear motion of a piston into rotary motion.	10/10/19	1/9/20	3	3
1782	Laser imaging systems integrator for combustion diagnostics, materials, and spectroscopic analysis.	3/15/19	3/15/24	7	7
	Total (97 Companies)			126	386.5

Hosted Networking and Educational Events

This quarter's events are broken down by month in the following table.

Event Name	Event Date	# of Attendees	Purpose of Event
SBIR/STTR 101	1/8/20	19	Small business federal funding Informational.
SPARK.ed	1/8/20	7	This seminar by Ashley Lee provided an overview of what constitutes intellectual property and how it is protected.
BioArbor	1/8/20	35	A volunteer run organization, hosts educational networking events for the life sciences industry in the greater Ann Arbor area.
Digital Roots Graduation	1/17/20	35	Graduation luncheon to recognize and celebrate the progress of our incubator client company as they move out of the incubator.
FinTech Meetup	1/17/20	16	This is a group for anyone interested in learning and sharing about all things FinTech (Finance + Technology).
A2NewTech	1/21/20	Sponsored	Hear pitches from five startups and new product business presentations and hanging out with fellow Ann Arbor entrepreneurs.
SPARK East Community Luncheon	2/7/20	21	Staff and clients eat lunch, give announcements, and share stories, concerns, and successes.
SPARK.ed	2/12/20	18	Discover the partnership behind every effective communication interaction and practice the critical routines to achieve mutual understanding and energize your life.
A2 R Users Group Meetup	2/13/20	10	Barry DeCicco presenting on getting started with RStudio running on AWS (Amazon Web Services).

Event Name	Event Date	# of Attendees	Purpose of Event
A2 FinTech Meetup	2/19/20	16	Dive into the investment management industry and see impact of financial and technological innovations disrupting the ETF space.
A2 Positive Business Meetup	2/25/20	18	Dave Jansen, VP of Technology at Give and Take Inc., presented about "Agile: Positive Business Practices in Action," discussing how the success of Agile is tied to its strong connection to positive psychology and positive business.
Women's Empowerment Masterclass	2/27/20	15	Leora Edut, author, speaker, and activist spoke on empowering women, and works with women and teen groups to inspire positive changes.
NLP Meetup	2/27/20	28	In this practitioner-focused talk, we covered how to batch, pad, and mask a range of neural network layers common in NLP.
Student Discovery Trek	2/28/20	64	Entrepreneurially minded students connecting with a select handful of innovative Ann Arbor startups.
A2 BioSocial	Feb-June 2020	Sponsored	Networking with biotech professionals with food, drink, and community building.
AdAdapted Graduation	3/5/20	45	Graduation luncheon to recognize and celebrate the progress of our incubator client company as they move out of the incubator.
SPARK East Community Luncheon	3/6/20	7	Staff and clients eat lunch, give announcements, and share stories, concerns, and successes.
IGDA Meetup	3/9/20	46	Austin Yarger hosted a playtesting session for his class of game developers for testing and feedback of their coursework.
SPARK.ed	3/11/20	12	Session 2 of 4 part-series presented by Corey Fernandez on the topic focused around Team Conflict: Embrace It, Never Run from It.
Total (19 Events)		412	

Microloans

Number of loans currently outstanding:	10
Current total loan amount outstanding	\$515,246.55
Loan amounts repaid this fiscal year	\$6,752.12
Loans written off this fiscal year	\$0
Cumulative Jobs retained	112
Cumulative net Jobs created	7
Payment made back to LDFA this fiscal year	0
Current balance of the microloan account	\$16,752.61

Capital Raised

Capital transactions reported this quarter are more numerous than other quarters due to the inclusion of data captured by the annual survey. The following table lists transactions reported by companies previously served by LDFA funded programs:

Uniq ID	Investors	Total Amount
Venture	Capital	\$4,100,000.00
4432	Omaha-based Dundee Venture Capital, Steve Case's Revolution Ventures, University of Michigan, and Invest Detroit Ventures	\$2,500,000.00
11964	Wakestream Ventures	\$500,000.00
8241	Cultivate Capital	\$1,100,000.00
Angel		\$1,920,000.00
11964	MI Angel Fund and MCN	\$675,000.00
11212	Pipeline Angels	\$35,000.00
11212	Richard Millunchick	\$10,000.00
11212	Founder's Fund	\$100,000.00
8241	Unknown	\$1,100,000.00
MEDC (P	SF, PSF 2.0, FSF, FCF, etc.)	\$125,000.00
11964	First Capital Fund	\$125,000.00
	Total (4 Companies)	\$12,290,000.00

Software

During this quarter, the software line in our budget was used in the following ways:

- 1. Zendesk: \$1,125.00 (\$375.00/month) Customer experience tool to help manage the incubators.
- 2. TrueJob: \$5,550.00 The backend to our job portal.
- 3. Sprout Software: \$594.00 Cloud-based social media management tool.
- 4. Asana: \$410.52 Track, manage, and connect projects to other people.
- 5. DocuSign: \$3,560.40 Document and signature management software.

Integrated Marketing Plan



Marketing Performance Metrics | Q3

Using an integrated marketing strategy to increase LDFA brand awareness

Marketing Communications Tool	Description	LDFA FY 19 – 20, Q3	Compared to Last Quarter	Compared to Last Year
Website Visits	Visits to our website will raise awareness and provide valuable tools and resources.	67,640	- 5%	+39%
Video Views	Video views on multiple platforms to reach wider audiences.	110,647	+ 21%	+57%
Social Media Impressions	General visibility on a variety of popular social media platforms.	967,411	- 25%	+17%
Social Media Interactions	Direct, positive interactions with people from all over the world.	58,647	+ 28%	+263%



Strategic Marketing and Communication Services

The newest addition to the SPARK services for our clients is strategic marketing and communication services. This is an in-house marketing strategy and service for our clients through the LDFA, dedicated to helping clients effectively reach their target audience. A few of the services offered through this expansion are strategy and planning, market targeting, support and advice on the execution of specific tactics, and connecting clients to additional community resources. This quarter there were a total of 107 sessions with 21 companies, 12 of them were new marketing clients.

Uniq ID	Service Provided	New Company	Sessions
4803	Strategic Marketing Session	0	2
8769	Marketing Resources and Educational Materials	0	1
11859	Marketing Needs Assessment	1	1
8393	Strategic Marketing Session, Content Review and Edits, Content Development,	0	9
11779	Marketing Resources and Educational Materials	0	1
11944	Marketing Needs Assessment	1	1
8457	Marketing Needs Assessment, Internal Account Collaboration	1	3
11851	Marketing Needs Assessment, Marketing Referral, Strategic Marketing Session	1	4
12036	Strategic Marketing Session	0	2
7531	Strategic Marketing Session, Marketing Resources & Educational Materials, Content Development, Internal Account Collaboration, Marketing Referral	0	10
6977	Strategic Marketing Session, Content Development, Marketing Resources and Educational Materials, Content Review and Edits, Internal Account Collaboration	0	31
12098	Marketing Needs Assessment, Internal Account Collaboration, Marketing Referral, Strategic Marketing Session	1	4
11248	Marketing Needs Assessment, Strategic Marketing Session	1	5
8806	Content Review and Edits	0	1
11979	Marketing Needs Assessment, Marketing Referral, Strategic Marketing Session	1	3
11770	Marketing Resources and Educational Materials	0	1
11895	Marketing Needs Assessment, Marketing Referral, Strategic Marketing Session, Internal Account Collaboration	1	4
11753	Marketing Needs Assessment	1	1
11985	Marketing Needs Assessment, Strategic Marketing Session, Marketing Referral, Internal Account Collaboration	1	4
11943	Marketing Needs Assessment, Strategic Marketing Session, Content Development, Internal Account Collaboration	1	15
11606	Marketing Needs Assessment, Strategic Marketing Session, Marketing Referral, Internal Account Collaboration	1	4
	Total (21 Companies)	12	107

Lenawee Now

Our satellite accelerator Lenawee NOW located in Adrian, Michigan has been included on Ann Arbor SPARK's 15-year LDFA extension as a SmartZone. Their office is involved in SPARK's entrepreneur services weekly pipeline meeting, boot camp, MEDC gateway, and our services as a whole. Thus, the following is a few takeaways from their performance over the last quarter.

Business Accelerator Intake [Phase I]

7 Total requests received 6 Requests non-tech 1 Qualified lead

Company Created

None during this quarter.

The following company were evaluated through [Phase II] Due Diligence:

None during this quarter.

The following company received [Phase III] Business Acceleration Grant support:

Uniq ID	Company Description	FTEs	Billed Support
12124	Provides colleges with the ability to start new, enrollment-driving majors without any upfront cost.	4.5	\$10,000.00

Talent Programs

Lenawee NOW does not have an EIR program but utilizes the members of their LION fund to assess early stage projects.

Hosted Events

None during this quarter.

Capital Raised

Lenawee Now's portfolio companies did not raise any private capital this quarter. In order to meet this metric Lenawee Now uses sales. To date we have used the sales numbers for Vision Marine, which had sales for the quarter for a total of \$256K.

Methodology

Initial Data Entry

A procedure was implemented in late 2008 requiring all entrepreneurs requesting assistance of Ann Arbor SPARK for Business Acceleration services, Incubator space or Boot Camp to fill out an online form which could be accessed through the SPARK website. Basic information including name, address, phone, email and brief description of company are required. This information is automatically fed into Salesforce. An effort is made to connect with all inquiries within 48 hours. In an initial communication, additional data gathered by SPARK personnel determines if the entrepreneur meets minimum criteria to warrant further discussion and assistance. At that time, a better description is captured of the applicant's needs.

Retained FTEs

We capture the number of FTEs that a company had at the start of an engagement of any kind. This number becomes our retained jobs number and is not altered. However, for reporting purposes it is possible the retained jobs number can change for a company if that company takes advantage of multiple services and their FTE count changes between those services. For example, when a team attends Boot Camp there may be only one FTE: the entrepreneur. When that team returns for Business Accelerator services there may be additional FTEs: co-founders or initial hires. When reports are generated on Boot Camp attendees the team's retained FTE number would be one. When reporting on Business Accelerator clients, the retained FTEs would be more than one.

Current FTEs

Throughout the year 'current jobs' is collected from entrepreneurs through three methods. When SPARK staff meet with entrepreneurs FTE updates are gathered and recorded in the CRM system. Starting midway through this contract year, written documentation is being obtained from every company at the start of each engagement. This document is attached to their file to corroborate the FTE count listed as start of engagement.

Annual Survey

All current and former clients are surveyed annually using Clicktools: an online survey tool that synchronizes with Salesforce. Our survey asks for data including current employment and other vital company information. Unfortunately, the response to our surveys has been less than 100%. The response rates for each of the four areas are listed in each section. If an entrepreneur sends SPARK data via the survey that does not pass a visual inspection they are contacted and asked to verify the data. If an adjustment is made to the CRM data, written documentation from the entrepreneur is attached to the file.

Jobs Created

New FTEs or "Jobs Created" are calculated by subtracting the retained jobs for the particular service we provided from the current job count, which gives us the added jobs since that particular engagement started.

Glossary

In an effort to reduce unnecessary complication, SPARK and the LDFA keep definitions of terms consistent with MEDC. Included for reference are applicable definitions provided by the MEDC:

Companies Served

The number of tech companies that contractor provided services to, including accelerator grants, incubator space, mentoring, consulting, training, etc.

Full-Time Equivalent

All W-2 employees and full-time workers compensated in equity. All part-time employees count as 0.5 FTE. Interns and independent contractors (1099) are not included in this definition.

Jobs Created

Number of jobs created by the companies that contractor served or are incubator clients. Does not include contract positions, only full-time equivalents.

Jobs Retained

Number of jobs retained by the companies that contractor served or are incubator clients. Does not include contract positions. Basically, includes the number of positions or employees at the companies that have been retained because of the funding from the incubator or because of the services that the incubator provided.

New Companies Created

Number of new companies created as a result of contractor's involvement. Companies can be defined as sole proprietorship, LLC, Corp, etc. Involvement can mean: 1) contractor provided services or funding to the company, 2) the company is located in contractor's incubator, 3) the company is a university spin-out, 4) contractor spoke with the newly formed company and provided them help with the next steps in building his/her company for example other resources, training classes, etc., or 5) contractor spoke with the CEO/CTO prior to the company formation. A company is only counted as 'new' if it is incorporated within the subsequent 12 months of the service provided.

Tech Company

A business in which research and development brings forth an innovative product or process. The innovation typically involves intellectual property that contributes to a strong competitive advantage in the marketplace and serves as a foundation for a high rate of growth.