

ENTREPRENEURSHIP AND **INNOVATION** IN WISCONSIN®

**REPORT ON 2016
PROGRAM ACTIVITY**



POSSIBILITIES BECOME REALITIES

THINK·MAKE·HAPPEN IN WISCONSIN



In Wisconsin, you're free to **think** bigger, encouraged to **make** your mark, and poised for great things to **happen**. Our culture and traditions fuel discovery and create opportunities for personal and professional fulfillment.

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NURTURING DREAM-CHASERS AND PROBLEM-SOLVERS



“Because startups are such a strong driver for the state’s overall economic growth, at WEDC we are committed to providing young companies with the support they need to succeed.”

— Mark R. Hogan
Secretary and CEO



Entrepreneurs and innovators play a critical role in shaping Wisconsin’s economic future. As technology advances, consumer tastes change, and population centers grow and shrink, the opportunities for new business will also evolve. If we are going to continue to thrive as a state, we need creative and driven people to keep pace with the world as it changes around us, but also to blaze trails in new directions.

Wisconsin has long been home to forward-thinking individuals who have recognized opportunities and developed solutions, and the data in this report reflects that history. 2016 was a banner year for the state’s entrepreneurship programs, and Wisconsin’s rich legacy of entrepreneurship shows no sign of slowing down.

Supporting entrepreneurship is a core component of the Wisconsin Economic Development Corporation’s (WEDC’s) mission. While other, higher-profile projects may generate more public attention, we know how crucial it is to our state’s economy that we support startups and the development of new ideas and technologies. We are committed to providing the resources that enable this entrepreneurial ecosystem to thrive.

WEDC’s Division of Entrepreneurship and Innovation currently supports a wide variety of programs and initiatives, which you will find summarized in this report. We work with entrepreneurs and their support networks every day to understand their individual needs and unique ideas. Given this engagement, we strive to tailor our efforts to the diverse and changing demands of the startup ecosystem so Wisconsin and its entrepreneurs can remain competitive in the fast-paced, dynamic and technically complex environments in which they operate.

In 2016, WEDC’s direct assistance programs helped 314 businesses attract nearly \$300 million in new funding and generate over \$85 million in revenue, for a total of \$385 million in new capital generation. These companies supported 2,133 full-time jobs and 717 part-time jobs in Wisconsin and pay an estimated \$111 million in annual wages. In addition, WEDC’s partners assisted 2,215 companies to create more than 407 new jobs and retain an additional 272 jobs through their own programs. Readers of this report should keep in mind that the aggregate impact of a healthy startup ecosystem reaches far beyond the companies WEDC is involved with, either directly or indirectly. It is impossible to capture the full impact because the whole is greater than the sum of the parts.

Wisconsin has an incredibly rich and vibrant entrepreneurial culture. The many events, conferences, pitch contests, mentorship meetings, investor groups, industry resources, technical assistance providers, lenders, investors and community support for entrepreneurs all work together to form a complex entrepreneurship ecosystem of which we are incredibly proud. We are pleased to present you with this report highlighting the impact of WEDC’s entrepreneurship and innovation programs and the return on public investment from the past year.

A handwritten signature in black ink, appearing to read 'Aaron Hagar'.

Aaron Hagar
Vice President
Entrepreneurship and Innovation

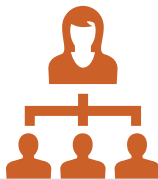


ENTREPRENEURSHIP THRIVES IN A SUPPORTIVE ECOSYSTEM

WEDC recognizes that the needs of a young couple starting a bakery are not the same as those of a startup working to commercialize a discovery from a university research lab. In light of the diversity of companies that fall under the umbrella of the term “startup,” WEDC and its partners offer an equally diverse system of resources to address the needs of these companies. This universe includes business planning assistance, loans, angel and venture funding, market research and customer development, technology and product research and development, prototyping, working capital, mentoring, startup space, legal services, seed funding, structured accelerator programs and other common needs. WEDC focuses its entrepreneurship resources into three broad categories:



Assisting high-growth technology-based startups to attract the funding required to grow and scale



Supporting organizations and events that create connections and relationships that build a strong startup culture



Establishing a suite of broadly available technical and financial resources delivered by local or industry/mission-based partners

A key component of WEDC’s startup assistance formula is its reliance on strong partners in economic development, academia and elsewhere to assist entrepreneurs and deliver business development and financial resources at the local level. WEDC also relies on strong networks to steer companies with more complex needs to the specialized resources required to move their ideas forward. Through its partners, WEDC is able to better deliver assistance that scales to meet the needs of businesses in every corner of Wisconsin.

A FLEXIBLE SET OF RESOURCES THAT RESPOND TO UNIQUE BUSINESS NEEDS

Though rewarding, starting a business is difficult, and success does not occur in a vacuum. Through concentrated effort and collaboration, Wisconsin has created an environment that contains all the ingredients necessary to turn brilliant ideas from abstract concepts into thriving businesses with products, customers and revenue.

The remainder of this report illustrates, program by program, how these resources target specific needs of young companies.

- The **Qualified New Business Venture Program** (page 6) helps startups raise the capital they need to grow by offering tax credits to investors.
- The **Technology Development Loan Program** (page 8) assists companies with high-tech or innovative solutions that have national or global market potential.
- The **Seed Accelerator Program** (page 12) helps support entrepreneurial training programs throughout the state.
- The **Capital Catalyst Program** (page 14) make seed grants available to organizations or communities, which in turn make grants or loans to, or investments in, early-stage and innovative small businesses that operate in their region.
- The **Entrepreneurial Micro-grants Program** (page 18) helps companies engage the services of a qualified provider to develop competitive proposals for federal Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) grants.
- The **SBIR Advance Program** (page 16) aims to fill critical funding gaps for activities that are restricted under these federal grant awards, such as market research, customer validation, patent development, business model development, and regulatory assessment.
- Through its **partnerships** (page 19), WEDC engages organizations that are well connected in entrepreneurial communities to help better target resources to the populations they are intended to help.

Together, these programs cover a broad range of needs for young companies. WEDC is committed to keeping its finger on the pulse of what the state's entrepreneurs need and adapting its offerings accordingly. In addition to the programs with results outlined elsewhere in this report, the **Entrepreneurship Support Grant Program** was continued for a second year after its initial pilot year. The program, which makes grants to organizations that help entrepreneurs, was designed to extend the reach of WEDC's entrepreneurship services to areas of unmet need. In addition, this report profiles four young companies that exemplify the spirit of innovation in Wisconsin.

High-profile headlines about multi-million-dollar deals only capture a tiny fragment of entrepreneurial success. Startups are an engine for job growth, with the majority coming from smaller companies that are in many cases the unsung heroes of economic growth. The handful of companies featured here represent thousands of companies that are creating jobs and driving growth across the state.

Wisconsin ranks in the top 10 among states for 10-year business survivorship, indicating that Wisconsin startups have a better-than-average chance of being in it for the long haul. Starting a new business always involves risk, but that business has a greater chance of success if it's started in Wisconsin—an indicator of the strength of the startup ecosystem and the state's support for entrepreneurship.

*** NOTE: Due to the different conventions used in reports required for the various programs, data for the SBIR/STTR Matching Grant and Entrepreneurial Micro-grant Programs is given on a fiscal year basis; data for all other programs is given on a calendar year basis.**

TOTAL FULL-TIME JOBS*

2,133

TOTAL PART-TIME JOBS*

717

TOTAL BUSINESSES ASSISTED*



314

TOTAL WEDC AWARD FUNDS*

\$23.2M

TOTAL IMPACT OF PROGRAMS*

\$385M

Totals represent the impact of WEDC's four programs combined:

Qualified New Business Venture Program
Technology Development Loan Program
Seed Accelerator Program
Capital Catalyst Program

QUALIFIED NEW BUSINESS VENTURE PROGRAM CONNECTS STARTUPS WITH CAPITAL

The Qualified New Business Venture (QNBV) Program was established under Wis. Stat. §238.15 to help tech-based companies attract the capital necessary to fuel their growth. QNBV certification is available to early-stage businesses developing innovative products, processes or services. The QNBV Program provides mutually beneficial outcomes for investors, startups and Wisconsin's economy. By supporting investment in cutting-edge companies, the QNBV Program sets the stage for Wisconsin's future success in a globally competitive environment.

As the numbers in this report show, this was a record year for investments in QNBV companies. Venture capital investors are significantly more active in Wisconsin than ever before, and are a key factor in providing capital as companies grow and scale.

The QNBV Program has shown positive results, driving Wisconsin's economic future through innovation and new opportunities. Along with partners across the state, WEDC is committed to providing assistance and resources to help bridge gaps and support startups at every stage of their growth.

2016 QNBV SUMMARY

TOTAL INVESTMENTS MADE IN
PARTICIPATING COMPANIES

\$281.7M

Total funding received by certified companies including qualifying investments, other private investments and grant funding

TOTAL CREDITS ISSUED

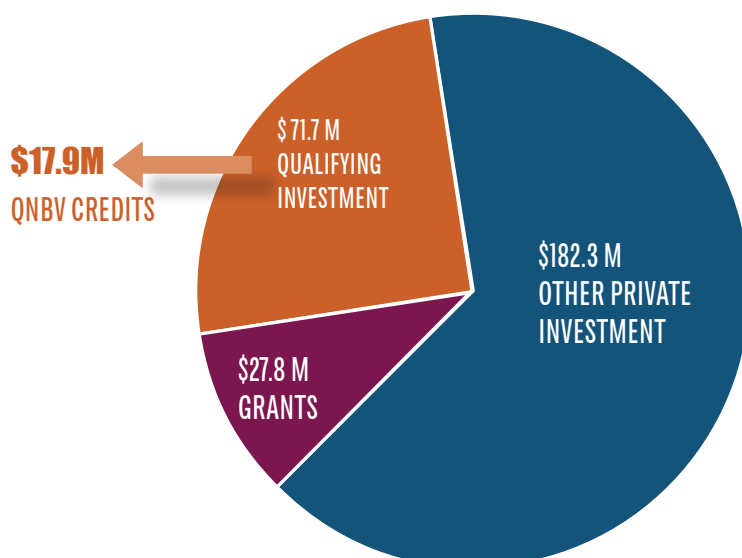
\$17.9M

Total tax credits provided in 2016 for investments in certified businesses

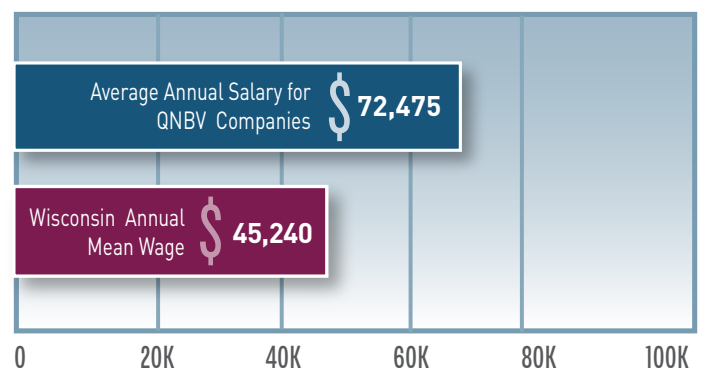
NEW QNBV CERTIFICATIONS IN 2016

47

FUNDING RECEIVED BY QNBV CERTIFIED COMPANIES



2016 AVERAGE FULL-TIME SALARY BASE OF QNBV-CERTIFIED COMPANIES



Source: May 2016 State Occupational Employment and Wage Estimates Wisconsin (All Occupations); BLS

2016 ANNUAL RESULTS

Source: Reporting from QNBV-certified companies

| ANGEL INVESTMENTS | EARLY-STAGE INVESTMENTS | TOTAL CREDITS | OTHER FINANCING | GRANTS | TOTAL |
|-------------------|-------------------------|---------------|-----------------|--------------|----------------------|
| \$36,088,212 | \$35,604,273 | \$17,923,147 | \$182,295,113 | \$27,762,015 | \$281,749,613 |

2016 ANNUAL EMPLOYMENT AND WAGES

Source: Reporting from QNBV-certified companies

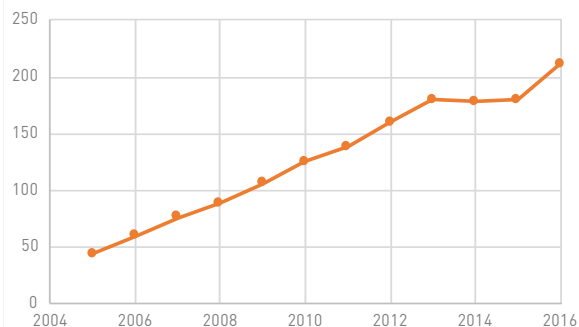
| CERTIFIED COMPANIES | NET NEW WI JOBS | WI FULL-TIME JOBS | WI PART-TIME JOBS | TOTAL JOBS (INCLUDING OUTSIDE WI) | FULL-TIME AVERAGE SALARY |
|---------------------|-----------------|-------------------|-------------------|-----------------------------------|--------------------------|
| 211 | 238 | 1,268 | 348 | 1,818 | \$72,475 |

2016 INVESTMENTS BY INDUSTRY

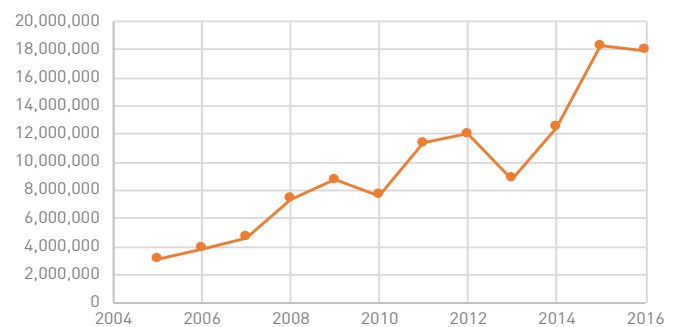
Source: Reporting from QNBV-certified companies

| BIOTECH | HEALTH TECH | INFO TECH | MANUFACTURING | OTHER | TOTAL |
|--------------|-------------|--------------|---------------|-------------|---------------------|
| \$10,701,272 | \$5,829,400 | \$37,900,820 | \$14,327,868 | \$2,933,228 | \$71,692,588 |

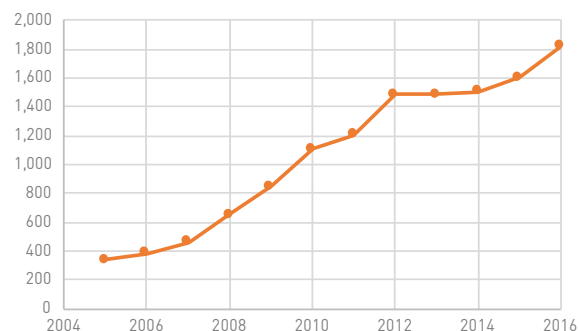
QNBV-CERTIFIED COMPANIES



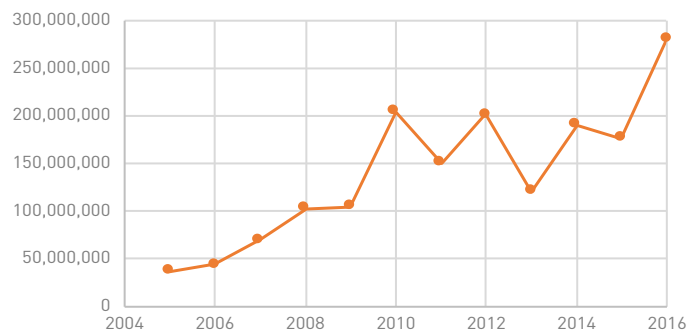
QNBV CREDITS



EMPLOYMENT BY QNBV-CERTIFIED COMPANIES



TOTAL INVESTMENT IN QNBV-CERTIFIED COMPANIES



TECHNOLOGY DEVELOPMENT LOANS PROVIDE FUNDS TO BRING IDEAS TO LIFE



Entrepreneurs often have no choice but to get creative when it comes to financing their new ventures. Recognizing that new ideas are the future of economic growth, WEDC offers lending options targeting the critical stages of new business development. WEDC's loan funds are tailored to help innovative companies with promising economic futures clear the hurdles associated with bringing new technologies, products and concepts to market.

Companies that provide high-tech or innovative solutions with national or global market potential may be eligible for Technology Development Loans, which are tailored to the evolving needs businesses face as they move through product/process development, commercial launch and rapid expansion.

Loans in this program typically range between \$100,000 and \$750,000 and are required to be part of a larger funding round.

COMPANIES ACTIVE IN THE PROGRAM

80

TOTAL NUMBER OF ACTIVE LOANS

96

EMPLOYEES AT TDL COMPANIES

1,008

AVERAGE SALARY

\$72,560

FUNDS RAISED IN 2016

\$115M

GRANTS RECEIVED BY PARTICIPATING
COMPANIES IN 2016

\$13.3M

REVENUE GENERATED BY PARTICIPATING
COMPANIES IN 2016

\$40.3M



COMPANIES WITH ACTIVE LOANS IN 2016

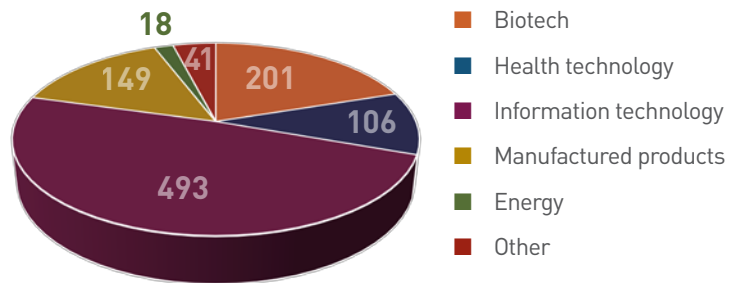


NEW LOANS IN 2016

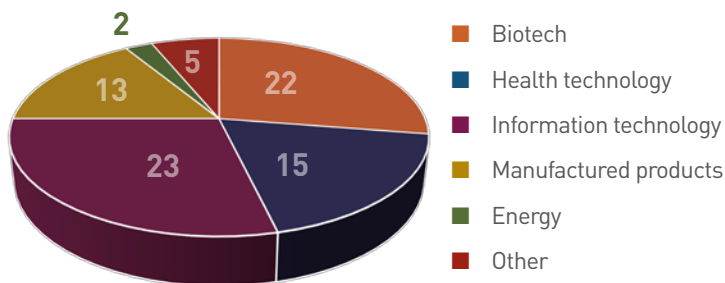
\$3.15M

IN LOANS ISSUED IN 2016

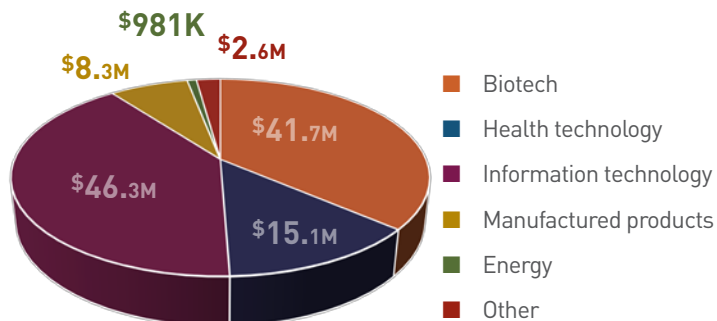
EMPLOYEES AT TDL COMPANIES BY INDUSTRY



TDL COMPANIES BY INDUSTRY



TOTAL INVESTMENTS IN TDL COMPANIES BY INDUSTRY



INVESTMENT PORTFOLIO OF QNBV AND TDL COMPANIES

In addition to supporting many programs through partners, WEDC administers two complementary programs directly: QNBV and TDL. Together, these programs help young companies secure the funding they need to get them through the crucial steps of commercializing an idea or discovery, from initial concept through development, validation, initial launch, and scaling up.

The QNBV and TDL programs work hand in hand, and many companies take advantage of both—there is significant overlap between the QNBV and TDL portfolios. Because of this overlap, looking at the two programs as a single portfolio provides a more complete picture of how these programs benefit high-tech startup activity in Wisconsin.

The entire portfolio of QNBV and TDL companies is viewable online at the Innovation Investment Portfolio page at

InWisconsin.com/entrepreneurs/innovation-investment-portfolio/

The portfolio, which allows prospective investors to easily learn about opportunities in Wisconsin, showcases the broad range of types of companies that benefit from these programs: the list includes companies from sectors including aviation and aerospace; bioscience and medical devices; energy, power and control; food and beverage; information technology; manufacturing; and water technology.

QNBV CUMULATIVE IMPACT

CUMULATIVE TOTAL OF QUALIFIED
INVESTMENT SINCE INCEPTION (2005-2016)

\$465M

COMPANIES ASSISTED SINCE QNBV INCEPTION

375

\$1.7 BILLION TOTAL FUNDING RECEIVED BY QNBV
COMPANIES SINCE INCEPTION

2016 QNBV AND TDL PROGRAMS COMBINED

226

COMPANIES

2,015

TOTAL EMPLOYEES

AVERAGE ANNUAL SALARY OVER

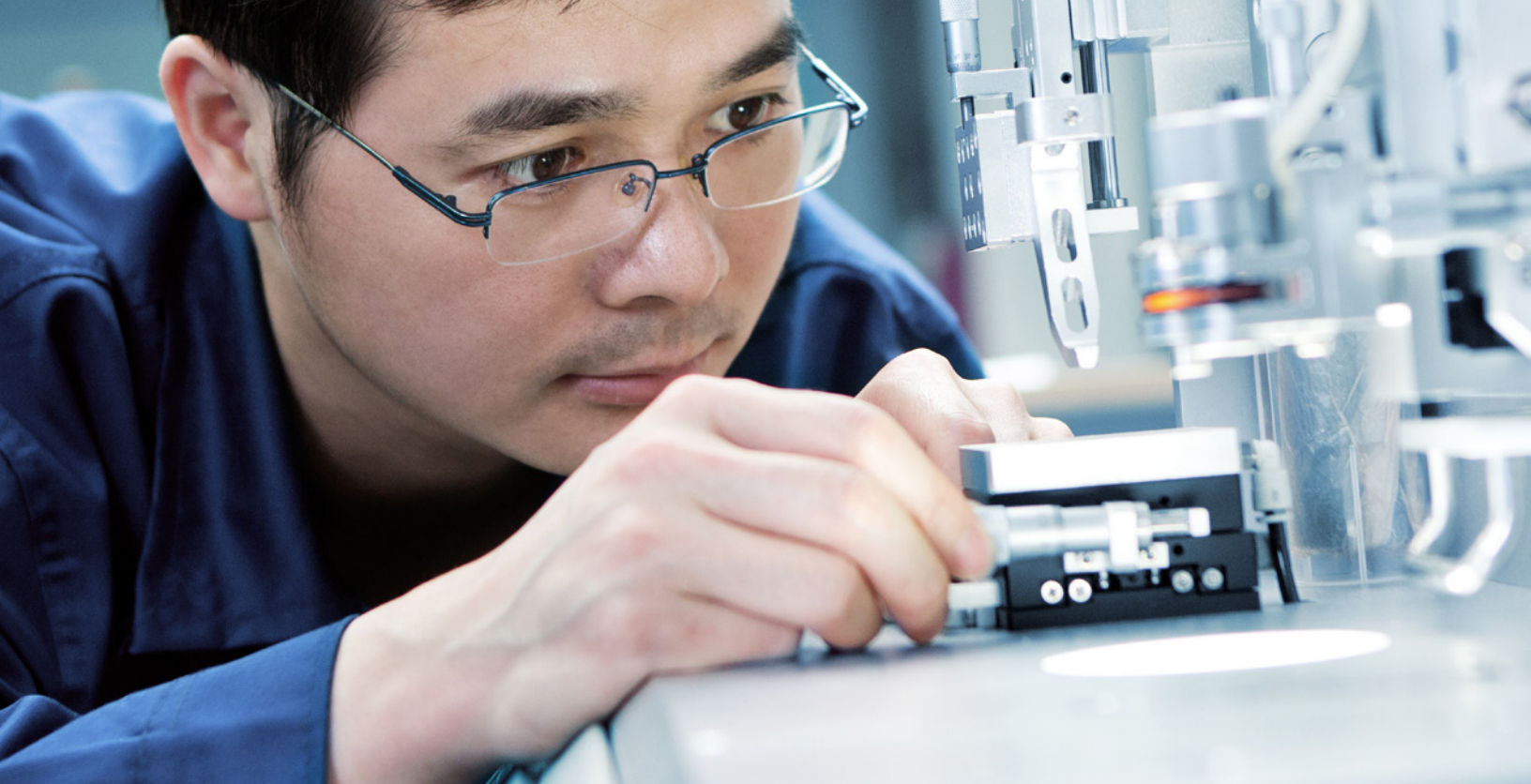
\$72K

\$93M

ESTIMATED FULL-TIME WAGES

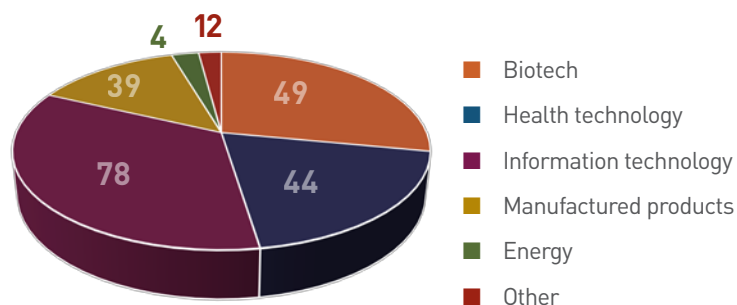
\$363.1M

TOTAL CAPITAL RECEIVED BY
PARTICIPATING COMPANIES IN 2016

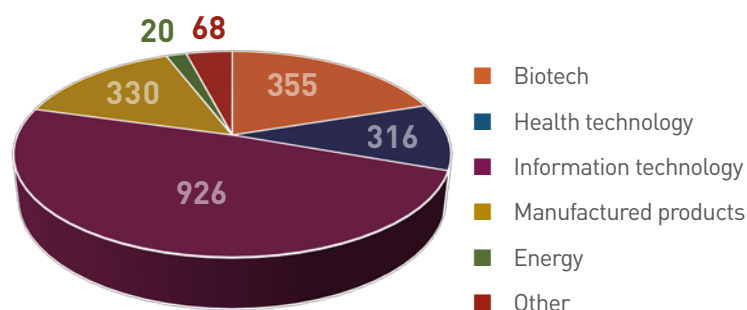


QNBV AND TDL COMPANIES IN 2016 BY INDUSTRY

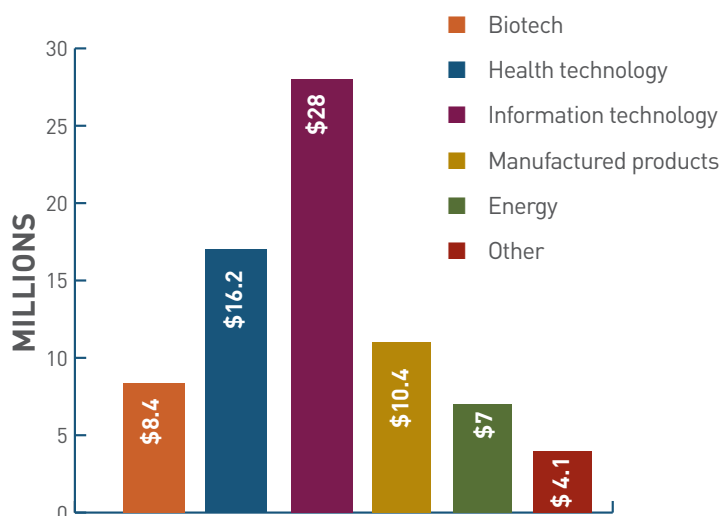
**QNBV AND TDL
PARTICIPATING BUSINESSES**



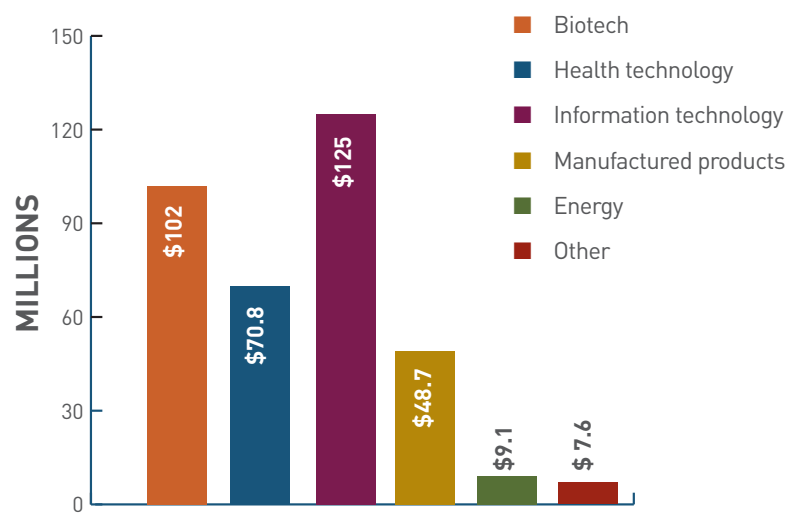
QNBV AND TDL EMPLOYEES



QNBV AND TDL TOTAL REVENUE



QNBV AND TDL TOTAL CAPITAL



SEED ACCELERATOR PROGRAM HELPS DEVELOP ENTREPRENEURIAL SKILLS

When it comes to being a successful entrepreneur, having a great idea backed by limitless drive is only half the battle. To have any chance of becoming commercially viable, today's startups also have to focus on customer development, technology validation, product design and testing, market analysis and financial management. It's not easy, and only the fittest survive.

WEDC's Seed Accelerator Program helps provide the kind of support that gives startups in Wisconsin a better chance of achieving long-term success. It does so by providing matching grants to organizations that provide participating entrepreneurs with support including business model training, small amounts of financing, experienced mentorship, visibility to investors and other resources.

With grants offered through the Seed Accelerator Program, WEDC empowers grant recipients to train, mentor and otherwise support entrepreneurs in a given sector, region or other focus area. Examples of successful Seed Accelerator Program investments include the Madworks Seed Accelerator, serving the Madison region; WERC Bench Labs, fueling innovation in the energy, power and control sector; and FaBCAP, assisting the growth and scale-up of companies in the food and beverage industry.

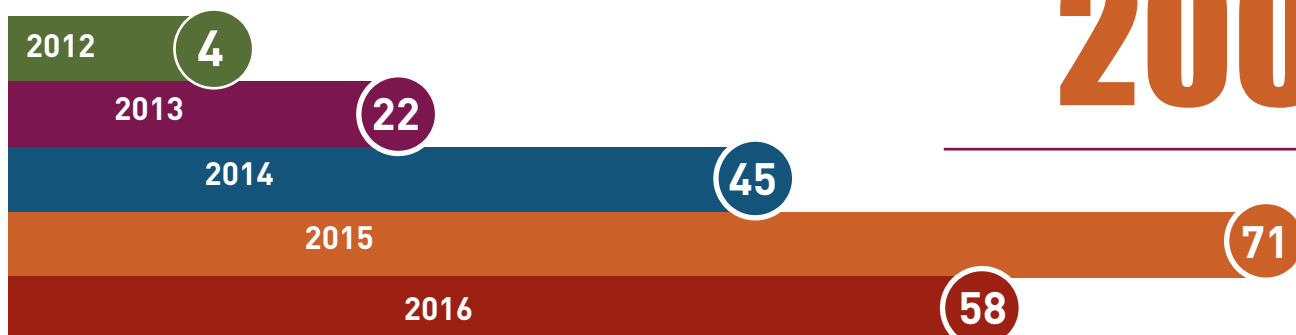
Under the Seed Accelerator Program, WEDC provides matching grants to organizations that offer unique, not-for-profit programs that provide intensive training, mentoring and financial assistance to a cohort of entrepreneurs for a specified period of time, typically three to six months. Factors determining the level of funding for grants to businesses include the number of companies per class and the length of the seed accelerator program for each class. The amount of grant funding available per company is generally between \$5,000 and \$50,000.

IN 2016, ACCELERATORS ASSISTED

58 BUSINESSES, PROVIDING **\$800,000**

IN FUNDING WITH WEDC ASSISTANCE OF **\$1.2M**.

BUSINESSES ASSISTED PER YEAR



SEED ACCELERATOR COMPANIES ASSISTED

TOTAL JOBS IN 2016

510

TOTAL SALARIES IN 2016

\$9M

TOTAL RETURN ON INVESTMENT IN 2016

\$21.7M

TOTAL BUSINESSES ASSISTED, 2012-2016



200



FUNDING PROVIDED TO COMPANIES THROUGH WEDC-FUNDED ACCELERATORS, 2012-2016

GRANTS

CALENDAR YEAR 2012

\$80,000

CALENDAR YEAR 2013

\$455,000

CALENDAR YEAR 2014

\$528,100

CALENDAR YEAR 2015

\$514,009

CALENDAR YEAR 2016

\$319,200



\$1.9M

CALENDAR YEAR 2014

\$110,000

CALENDAR YEAR 2015

\$12,500

CALENDAR YEAR 2016

\$190,000

ROYALTY-BASED FUNDING



\$313k

LOANS

CALENDAR YEAR 2015

\$337,500

CALENDAR YEAR 2016

\$300,000



\$638k

TOTAL FUNDING



\$2.8M

CAPITAL CATALYST LEVERAGES LOCAL ENTREPRENEURIAL NETWORKS

To effectively deploy capital to spur new business generation, you need to be close to the action. That's why WEDC created the Capital Catalyst Program—to make seed grants available to highly structured and well-funded organizations or communities dedicated to stimulating entrepreneurship.

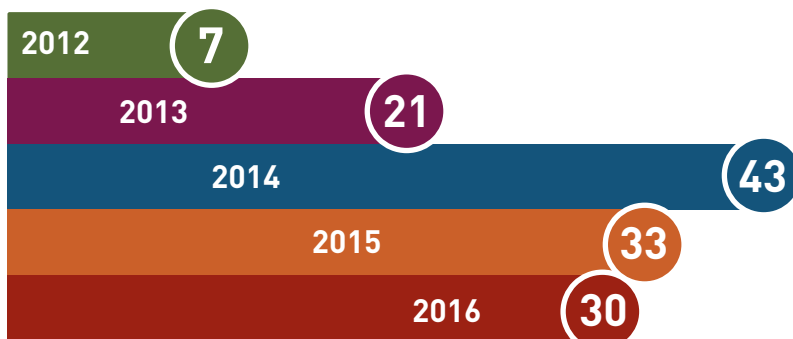
These funds may be offered as grants, loans or investments to startups served by the program participants. While the primary emphasis is on technology-based companies, each organization sets its own criteria based on its particular mission.

Active Capital Catalyst-supported funds include Bridge to Cures, the Doyenne Group, Ideadvance Seed Fund, Racine County Economic Development Corporation and the Whitewater Community Development Authority, as well as two new funds developed in 2016 with program awards to the Greater Oshkosh Economic Development Corporation and Milwaukee 7.

These organizations have a proven track record of facilitating the creation of high-growth business startups, as well as the ability to provide training and mentoring to startups that benefit from their seed grants. As such, each is eligible for \$50,000 to \$500,000 or more of WEDC Capital Catalyst funds, which the recipient organization must match at least 1:1.

IN 2016, WEDC PROVIDED **\$900,000** TO CAPITAL CATALYST FUNDS, WHICH IN TURN PROVIDED **\$1.8M** TO BUSINESSES, LEVERAGING **\$3.4M** IN ADDITIONAL INVESTMENT FOR THOSE BUSINESSES ALLOWING THEM TO GENERATE **\$480,000** IN REVENUE.

BUSINESSES ASSISTED PER YEAR



CAPITAL CATALYST COMPANIES ASSISTED

TOTAL JOBS IN 2016

699

TOTAL SALARIES IN 2016

\$12M

TOTAL RETURN ON INVESTMENT IN 2016

\$3.9M

TOTAL BUSINESSES ASSISTED,
2012-2016



134



Photo courtesy of Rockwell Automation

SEED FUNDING PROVIDED TO BUSINESSES BY CAPITAL CATALYST GRANT RECIPIENTS, 2012–2016

CALENDAR YEAR 2012
\$35,000

CALENDAR YEAR 2013
\$122,128

CALENDAR YEAR 2014
\$755,295

CALENDAR YEAR 2015
\$927,343

CALENDAR YEAR 2016
\$1,267,050

GRANTS



\$3.1M

LOANS



\$257k

CALENDAR YEAR 2013
\$150,000

CALENDAR YEAR 2014
\$902,000

CALENDAR YEAR 2015
\$546,500

CALENDAR YEAR 2016
\$421,113

INVESTMENT FUNDING (EQUITY AND ROYALTY-BASED FUNDING)



\$2.0M

TOTAL FUNDING



\$5.3M

CALENDAR YEAR 2013
\$100,000

CALENDAR YEAR 2016
\$156,666

SBIR/STTR MATCHING GRANT PROGRAM FILLS CRITICAL GAPS FOR SMALL COMPANIES

Even when companies secure a highly competitive federal SBIR/STTR grant, certain critical activities are restricted under those federal awards.

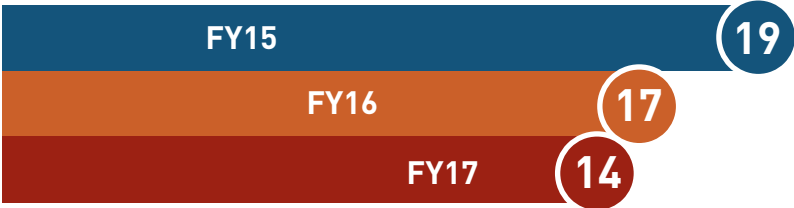
WEDC’s SBIR/STTR Matching Grant Program, administered through UW Extension’s Center for Technology Commercialization as the SBIR Advance Program, provides matching funds that companies can use for activities including market research and patent development. Grants are open to companies located in Wisconsin or those that relocate here.

In providing capital to companies whose ideas have been validated through these coveted federal awards, this program helps strengthen the state’s innovation economy and increase the success rate of technology startups that create new high-wage jobs in the state.

“Businesses working through business modeling processes are more likely to be awarded an SBIR grant. In addition, states with matching grant programs have increased success rates for the next phase of federal funding—and that can exceed \$1 million.”

~Dave Linz
Center for Technology Commercialization
Client Services Director

BUSINESSES ASSISTED PER FISCAL YEAR



SBIR/STTR MATCHING GRANT RECIPIENT COMPANIES

TOTAL JOBS

215

TOTAL SALARIES IN FY17

\$12M

TOTAL RETURN ON INVESTMENT IN FY17

\$10.1M

WEDC MATCHING GRANTS IN FY17

\$1M

NEW AWARDS IN FY17

14



SEED FUNDING PROVIDED TO BUSINESSES THROUGH SBIR/STTR MATCHING GRANTS, FY15-FY17

WEDC FUNDING PER AWARD



\$75k

BUSINESSES ASSISTED



38*

* NOTE: Some businesses received assistance in more than one year.

TOTAL WEDC FUNDING



\$3.7M

RETURN ON INVESTMENT



\$33M



ENTREPRENEURIAL MICRO-GRANTS SUPPORT IMPORTANT FIRST STEPS

Even for startups fortunate enough to receive grant support or venture investment, funding gaps may exist—or companies may need assistance in getting to the point of being able to draw larger investment amounts. To help companies bridge these gaps, WEDC created the Entrepreneurial Micro-grants Program. Administered by UW-Extension's Center for Technology Commercialization (CTC), the program offers grants for the following purposes:

- Helping companies prepare and submit a proposal for federal Small Business Innovation Research/Small Business Technology Transfer funding or another federal grant.
- Helping companies access the services necessary to develop a comprehensive business plan or commercialization plan
- Covering part of the cost of business modeling or business planning coursework offered by UW-Extension's Small Business Development Centers

In FY17, the Entrepreneurial Micro-grants Program supported nearly 100 entrepreneurs, with 71 clients receiving support for entrepreneurial training coursework, and 24 more awardees in SBIR/STTR assistance and business commercialization initiatives. CTC clients receiving SBIR assistance received over \$8.9 million in federal SBIR/STTR awards. This return on WEDC's investment contributes not only to the success of the companies in question, but also to the health of the state's overall entrepreneurial ecosystem.

BECAUSE OF THIS PROGRAM,
COMPANIES WERE ABLE TO ATTRACT

\$8.9M

IN FEDERAL GRANT FUNDING IN FY17.

PARTNERSHIPS MAGNIFY THE IMPACT OF ENTREPRENEURIAL SUPPORT

In its mission to support businesses throughout the state, WEDC relies heavily on its partners, who through their local networks and constituencies, act as the direct link between businesses and the resources that exist to help them succeed. Last year, through partners that exist to serve startups, WEDC's assistance reached 2,215 companies. Most of these companies are still in the planning stage and have not yet released a product to market—but even so, they are already starting to create jobs: last year, WEDC's assistance through its partners in this area led to the creation of 407 jobs, as well as the retention of 272 jobs.



The UW-Extension **Center for Technology Commercialization** (CTC), which administers the Entrepreneurial Micro-grant, Ileadvance and SBIR Advance programs.

In FY17, CTC provided counseling to **463 distinct business clients**—activity which assisted in the creation of **36 new jobs** and the retention of an additional four.



The **Wisconsin Women's Business Initiative Corporation** (WWBIC) provides micro-loan assistance, quality business education and hands-on consultation to entrepreneurs, with an emphasis on women, people of color and lower-income individuals. In FY17, WWBIC provided **1,476 clients** with counseling services, and WWBIC's micro-loan program provided **\$7.2 million** in loan financing to small businesses, including **49 startups**. WWBIC's assistance is expected to facilitate the creation of **360 new jobs** and the retention of **268 positions**.



BrightStar
WISCONSIN
Foundation, Inc.

The **BrightStar Wisconsin Foundation** is a 501(c)(3)-designated nonprofit foundation that manages an equity investment fund capitalized by private donations. BrightStar invests primarily in technology-based, high-growth, early-stage businesses to facilitate job creation and increase economic activity statewide. In FY17, BrightStar made investments totaling nearly **\$1.3 million** in 10 early-stage companies.



Wisconsin
Technology
Council

The **Wisconsin Technology Council** contributes to the state's high-tech and entrepreneurial economy through its policy work, hands-on work with investors and companies, educational forums and networking events. In FY17, more than **260 entrepreneurs** benefitted from key WTC events and from assistance delivered by WTC's Wisconsin Angel Network, receiving training, guidance and other unique opportunities to advance their ventures.



AkitaBox

LEVERAGING TECHNOLOGY TO MAKE BUILDING MANAGERS' JOBS EASIER

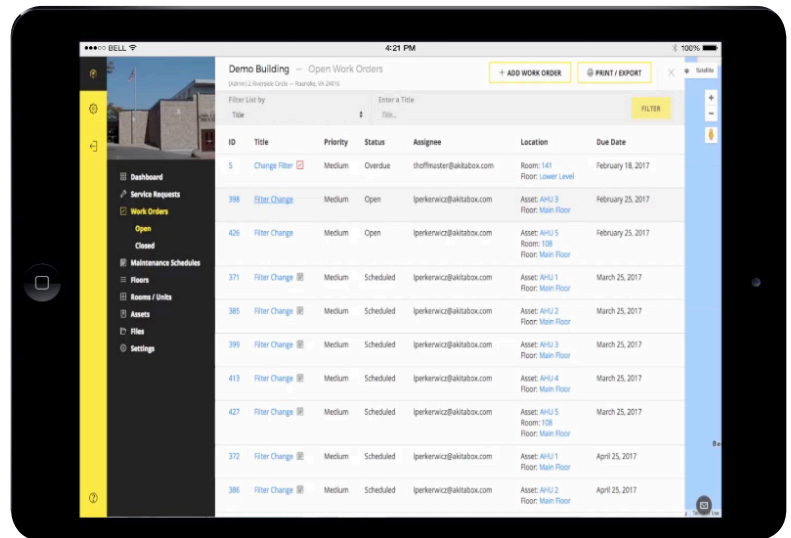
Building managers' jobs are complex, spanning daily activities, routine maintenance and future planning—and they often rely on low-tech, paper-based record-keeping systems or unwieldy Excel documents. With proprietary software designed for facilities management, AkitaBox's founders set out to change that.

Founded in 2015, the Madison-based company created software that answers three crucial questions: What needs to be done? Where is it located? And who worked on it last? "Using building data with the AkitaBox software can transform facilities," says the company's CEO, Todd Hoffmaster. "Collected data has the ability to become a digitally preserved visual map through our software."

AkitaBox's four founders—Hoffmaster, Robbie Steinbock, Josh Lowe and Luke Perkewicz—had backgrounds in facilities management, and recognized the potential for software to improve the field's efficiency. As the company began testing its product, the founders soon realized that its customers would benefit from assistance with implementation. AkitaBox created its customer success team for this purpose, and now has more than 50 employees.

The company has benefited from certification as a Qualified New Business Venture, attracting investment with the help of tax credits. AkitaBox also participated in the gener8tor accelerator program in Milwaukee. "The mentorship and networking that gener8tor has given us as a young company has been invaluable," says Hoffmaster.

Being located in Wisconsin has brought AkitaBox benefits beyond those two programs, says Hoffmaster. "The entrepreneurial ecosystem is strong in Wisconsin," he said. "The dollar goes farther here than on either of the coasts, and as a startup, we can put that dollar to work for us. It's also a great place to grow a business because the work ethic in Wisconsin includes hard work and intelligence." When the company posts a new opening, he says, "We get applicants from all over the U.S. trying to join our growing team because they've heard great things about Madison."



AkitaBox's facility maintenance software collects, integrates and organizes building information to simplify maintenance and planning.

A COMPASS TO HELP FIREFIGHTERS FIND THEIR WAY



Even the most highly trained and experienced firefighters can become disoriented due to heavy smoke inside a burning building, hampering their efforts to save the lives of people trapped in the building and sometimes endangering the firefighters' own lives as well.

Until recently, the best solution available had been thermal imaging cameras, which can be expensive and cumbersome, and don't entirely solve the problem, since part of the disorientation stems from firefighters simply being unfamiliar with the layout of a building they've never been inside before.

Jeff Dykes, a captain in the Eau Claire Fire Department with 20 years of experience, conceived of a better solution: If firefighters could just stay oriented to the directions of the compass, they would better be able to find their way around unfamiliar buildings and to find their way out again.

After working with engineers to develop and patent the technology, Dykes worked with a Minnesota electronics manufacturer to develop a prototype for the device he envisioned: a light-up compass that fits inside a firefighter's face mask. Its name: the Northern Star.

"When I go inside your house and I become disoriented because I can't see my hand in front of my face, if I know your front door faces north, I just simply head north, using the Northern Star," Dykes explains.

This invention—the first directional guidance system that firefighters can wear inside their masks—won the grand prize in the 2017 Wisconsin Governor's Business Plan Contest. Additional honors include the grand prize in the Eau Claire Economic Development Corporation's 2014 Idea Challenge and an invitation to represent Wisconsin in a small business gathering at the White House.

Dykes is still the sole employee of his company, Northern Star Fire LLC, but anticipates hiring additional staff soon. Founded in 2015, the company is currently working on fulfilling its first 100 product orders. Dykes believes there is sufficient demand for the product that orders could number in the tens of thousands before long. Aside from firefighters across the U.S. and abroad, another possible market for the product is SCUBA divers—and Dykes notes that he recently received an inquiry about the technology from NASA.

Thus far, the company has benefited from resources in Wisconsin including the Center for Technology Commercialization's Ideadvance Program, as well as technical assistance and guidance from the Wisconsin Alumni Research Foundation and the Eau Claire Small Business Development Center. The company was recently certified by WEDC as a Qualified New Business Venture, which will help it raise additional investment. "We could not have gotten to where we are today without all of these entities' help," says Dykes.

"In every faction of our society, we have smart, engaged workers that have identified a problem and come up with a solution," he adds. "Unfortunately, many of these solutions never see the light of day because the inventor never took the first step to explore the validity of their idea. Wisconsin is a great place to start a business because there are so many resources available to help new startup companies."





LAUNDRY TECHNOLOGY THAT SAVES ENERGY—AND LIVES

Institutional settings such as hospitals, nursing homes and hotels exercise meticulous care in their cleaning procedures to protect the health and safety of their residents—yet a major vulnerability to this safety is posed by an item that’s present in each and every room: linens.

Andrew Rupnow set out to work on this problem after his grandfather passed away due to a bed linen-related infection he contracted in the hospital after surgery. Rupnow knew from his experience helping a family member open a restaurant that ozone was used to kill mold and odor in food storage coolers. He drew on this knowledge to incorporate the ozone molecule’s

antimicrobial properties into the EcoWash system, designed to improve sanitation processes in medical, agricultural, correctional and hospitality settings, among others. Ozone is more effective than bleach, and can even disinfect in a cold-water wash cycle, so laundry no longer had to be washed in hot water—meaning Rupnow’s customers were able to reduce the amount of chemicals and energy they used by adopting the new technology.

Working together with a seasoned team of professionals with experience in manufacturing, hospitality and health care, in 2012 Rupnow founded Baraboo-based OMNI Solutions, and he remains chairman of the board. Today, OMNI Solutions’ innovative, energy-efficient and effective laundry cleaning and sanitization solutions and technologies—including Smart Ultraviolet Light Advanced Oxidation System (SULAOS), the LUX Hydroxyl System, Smart Laundry Concentrate Products and Smart Housekeeping Concentrate Products—are available nationwide, helping their users achieve high levels of cleanliness through a patented bacteria sanitation process, decrease negative environmental impacts, and cut operational costs.

OMNI Solutions recently signed an exclusive agreement with Ecolab Textile Care, a global leader in water, hygiene and energy technologies and services that protect people and vital resources. This partnership offers commercial laundry operators a unique solution for treating reuse water. This patent-pending solution provides substantial water and energy savings, in addition to protecting textile condition and improving efficiency in the washing process at major laundry plants.

The company has been recognized as one of the “Best Entrepreneurial Companies in America” by Entrepreneur magazine’s Entrepreneur 360 List, the most comprehensive analysis of private companies in the U.S. This study listed OMNI Solutions (formerly OMNI Chemicals) in the top 100 independently owned U.S. companies that have mastered a balance of impact, innovation, growth and leadership. OMNI Solutions was also named Trade Ally of the Year by Southern California Gas Co. for helping businesses throughout Southern California save energy and operating costs.

By being located in Wisconsin, “we are strategically placed in the hub of the many leaders in the commercial laundry industry,” says Rupnow. “This close proximity makes it much more convenient to collaborate on projects.”

OMNI Solutions has been certified as a Qualified New Business Venture, and also received a Technology Development Loan from WEDC. In addition, the company has received incentives from Sauk County and the City of Baraboo. “The innovation synergies between companies, technology infrastructure and funding incentive packages make Wisconsin a great location for starting a new business,” says Rupnow.



DETECTING METALS WITH A LIGHT SOURCE AS HOT AS THE SUN—ON A PORTABLE DEVICE



RADOM

The invention process usually starts with identifying a problem—but in some cases, an innovative solution is identified first, and the inventors then determine what problems this innovation can solve. Such was the case with Radom Corp., the Milwaukee-based startup whose founders, in the course of their work as engineers, stumbled on unusual properties of advanced technical ceramic that make the material a good medium for conducting high-frequency currents. “We just kind of stumbled on it,” says Ashok Menon, one of the cofounders.

Radom’s technology generates a high-temperature light source referred to as plasma—as hot as the surface of the sun, at 6,000 degrees Celsius—through the use of advanced technical ceramic. Applications of this technology include semiconductors, lasers, gasification, propulsion and detection of metals. To date, the technology used for these functions would have utilized copper. Using ceramics instead eliminates many engineering challenges such as the need for engineering cooling solutions and expensive gases that would be required to run the instruments, thus reducing their size and cost.

The initial product in which Radom is embedding this technology will be a device that can detect the presence of metals in liquids such as oils, perfumes, drinking water and industrial process water. “This instrument will be small enough to carry around, which was unthinkable in the past,” says Menon. “This product is extremely useful when testing needs to be carried out in a remote setting, such as on a ship or a remote mine.”

Radom received a Small Business Innovation and Research (SBIR) grant from the National Science Foundation, and received additional grant funds through the SBIR Advance program administered by the Center for Technology Commercialization with funding support from WEDC. The company won a spot in The Water Council’s BREW (Business. Research. Entrepreneurship. In Wisconsin) Accelerator in 2015, providing support for them to further advance their product toward commercialization. “In startup ecosystem in Wisconsin, people are very quick to share information because everyone is learning,” says Menon. “The BREW is a central figure to this startup ecosystem.”

A 2016 agreement in which Radom licensed its technology to a large multinational original equipment manufacturer (OEM) provided the revenue to support the development of Radom’s own product, which is expected to be available for customer demos in late 2017. Radom received an International Market Access Grant from WEDC to travel to a trade show in Austria, and was recently approved as a Qualified New Business Venture, which will help it to attract additional investment.

“Wisconsin has been a tremendous ally and supporter throughout the process,” says Menon. “In this state we have a culture of building things. We have a great machining industry. Because companies are making products for scientific-grade instruments, we’ve hardly had to look outside the state for our supply chain. While we have purchased some parts from outside the country, the product construction and assembly can all be done right here.”

For more information about available investment opportunities contact:

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The Wisconsin Economic Development Corporation (WEDC) leads economic development efforts for the state by advancing and maximizing opportunities in Wisconsin for businesses, communities and people to thrive in a globally competitive environment. WEDC provides resources, operational support and financial assistance to companies, partners and communities in Wisconsin. WEDC achieves its mission through initiatives driven by five strategic pillars: business development; community and economic opportunity; strategic economic competitiveness; state brand management and promotion; and operational and fiscal excellence. Working with more than 600 regional and local partners, WEDC develops and delivers solutions representative of a highly responsive and coordinated economic development network.

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