

## ONE NORTH CAROLINA SMALL BUSINESS PROGRAM SUPPORTS ENGINEERING FIRM'S OVERWHELMING GROWTH

**A** CRITICAL OBSTACLE THAT growing businesses face is the Valley of Death, the period before the company generates profit. Corvid Technologies, an engineering firm founded in 2004 by David Robinson, overcame the Valley of Death with the help of the One North Carolina Small Business program. Corvid has grown exponentially to include over 180 employees in five offices across the country, and they recently broke ground on a \$28.9 million corporate campus in Iredell County, NC. The expansion is expected to add more than 350 local jobs over five years with extremely competitive salaries.

Corvid delivers cutting-edge engineering solutions to a variety of Department of Defense (DoD) and commercial customers to solve their most difficult problems. Corvid's engineers and scientists—about three-fourths of which have master's degrees or Ph.D.'s—have the specialized backgrounds required to execute such challenging work. By leveraging an in-house, massively parallel supercomputer system, prototyping facility, ballistics and mechanics lab, and high-fidelity physics solvers, Corvid delivers end-to-end solutions. The results are predictive modeling and simulation (M&S) analyses and physics-based solutions that save the DoD and other customers valuable time, money, and lives.

Despite Corvid's vast capabilities and highly skilled employees, the engineering firm needed funding to bridge the Valley of Death. Since 2007, Corvid Technologies has taken advantage of the One North Carolina Small Business Fund matching program, a key tool available to early-stage companies in the state.

In relation to supporting Corvid's mission, CFO Ted Berna said, "There needs to be customization and tailoring of our tools for different customers and programs. Federal Small Business Innovation Research (SBIR's) and Small Business Technology Transfer (STTR's) Grants provide great sources of funding for customization. Each time the One North Carolina grant matches these federal funds, we can provide additional work and support above and beyond expectations, which adds to our firm's credibility. If the goal of the program is to help research and development companies become successful, it definitely helped us."

Kenneth Boyett, Director of Contracts/Finance, expanded on the value of the One North Carolina funds by saying, "This matching program has been crucial in helping Corvid continue to expand our customer base within the Department of Defense and to expand the scope of SBIR projects that we are able to pursue. The limited nature of the funding available under a Phase

I SBIR often means that the Phase I projects are worked at a loss for the company, with the goal of transitioning the project into a profitable Phase II effort. The matching funding program helps offset some of these losses."

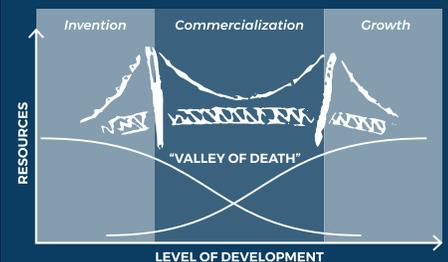
Citing a specific example, Boyett said, "The matching funds provided by the One North Carolina Phase I program directly influenced Corvid's ability to successfully complete Phase I and deliver prototype ammunition to US Special Operation Command. As a result of the success in Phase I, Corvid was invited to submit a Phase II proposal. Meeting all of the requirements within the limited budget provided by the SBIR program would not have been feasible without the matching funds provided under the NC program."

The One North Carolina Small Business program enables companies across the state to overcome the Valley of Death and become extremely successful, as exemplified through Corvid. Berna cites the One NC Small Business program as a consideration for keeping the company local. "That support was a factor in us wanting to keep North Carolina as our permanent residence for both our headquarters and future expansion," Berna said.

### ABOUT THIS SERIES

Entrepreneurs and business owners face many challenges during the life of their companies, but none strike more fear and difficulty than the 'Valley of Death.'

A familiar phrase to venture capitalists and business executives, the Valley of Death is the period of time a company must navigate between the discovery of a business-worthy idea or technology and the point when the company generates enough paying customers and revenue for long-term survival, job creation, and profits. Finding funding sources to bridge this gap is an ongoing struggle.



The One North Carolina Small Business Program helps promising, technology-oriented companies in the state survive and thrive. By providing matching dollars to companies that have already won highly-competitive federal technology grants, the OneNC Small Business Program is an important solution for North Carolina companies facing one of the business world's toughest challenges.

# BRIDGING THE VALLEY OF DEATH: A One North Carolina Small Business Program SUCCESS STORY



one north carolina  
Small Business Program

## ABOUT THE PROGRAM

- Established in 2005 (§ 143B-437.80-81), the Program awards matching funds to small businesses that receive federal Phase I Small Business Innovation Research (SBIR) or Small Business Technology Transfer (STTR) Phase I grants.
- SBIR and STTR grants are the single largest source of early-stage technology development and commercialization funding for small businesses (more than \$2 billion annually) – larger than all private sources combined.
- Yet the federal grants are often not large enough to allow the small businesses to complete their work, and federal restrictions on the uses of grant funds often limit the businesses.
- The North Carolina Program supplements and leverages the federal funds, helping homegrown businesses commercialize innovative technologies & create jobs.
- Since Program Inception:
  - 398 grants awarded
  - Over \$24.7 million awarded
  - 255 different companies in 25 counties and 41 cities across the state have received funding
  - More than 900 jobs created or retained
  - More than \$500 million in external capital investment
  - More than 100 patents and copyrights already received, and another 250 applied for and under review
  - More than \$125 million in total sales resulting directly from the technology developed with Program funding
  - More than \$1.5 billion in total sales resulting indirectly from licenses of the technology developed with Program funding
  - More than 95 percent of the grantee businesses agree that the Program encourages the establishment and growth of high-quality, advanced technology firms in North Carolina
  - For more information, visit: [nccommerce.com/sti/grant-programs](http://nccommerce.com/sti/grant-programs)

# CORVID

## ABOUT THE COMPANY

- Corvid Technologies provides technology-based solutions using high-fidelity computational physics solvers, supercomputer systems, a prototyping plant, and a ballistics and mechanics lab to investigate and improve physics-related questions in applications ranging from missile defense to motorsports.
- Year Founded: 2014
- Office Location: Mooresville, N.C.
- Current Number of Employees: 144
- Website: [corvidtec.com](http://corvidtec.com)
- Federal SBIR/STTR Funder: U.S. Department of Defense-Special Operations Command, Missile Defense Agency, & Department of the Navy
- One NC Small Business Grant Recipient in 2007, 2008, 2011, 2015, & 2017



*Corvid leadership breaks ground on a new \$28.9 million corporate campus in Iredell County, NC, May 2018.*



*Corvid's current headquarters in Mooresville, NC.*



**NORTH CAROLINA**  
Department of Commerce  
*Science, Technology & Innovation*

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