



Testimony of

William E. Bean

Director, Technology and Business Center

College of William and Mary

Williamsburg, Virginia

**BEFORE THE COMMITTEE ON SMALL BUSINESS
UNITED STATES HOUSE OF REPRESENTATIVES**

“SBIR: America’s National Technology Development Incubator”

29 January 2008

On Behalf of

The College of William and Mary

**Testimony for: House of Representatives Committee on Small Business
Hearing entitled: "SBIR"; 29 January 2008**

Provided by: Mr. William E. Bean
Director, Technology and Business Center
Department of Economic Development
College of William & Mary, Williamsburg, VA.

Introduction

Chairperson Velazquez, Representative Chabot, members of the subcommittee, good morning. Thank you for inviting me here and for this opportunity to provide testimony regarding the highly successful SBIR program.

I am William Bean, Director, Technology & Business Center, College of William & Mary (CWM) in Williamsburg, VA. My background includes considerable experience dealing with small companies as a small business consultant and in my current position. Prior to CWM, I held General Manager and President positions with Marconi Instruments in the Netherlands, France and in the USA, Schlumberger Smart Cards USA, and Wandle & Goltermann ATE Division. These cumulative experiences have served me well in providing the necessary background to understand the many issues facing small businesses and the types of services and programs that would help to assure their success. I have also been involved in the design of several start-up companies. My biography is included in the attachments.

The College of William & Mary is closely linked with the local community via the Department of Economic Development. The Technology & Business Center is a central component of the Department's outreach into the greater Hampton Roads community (comprising Williamsburg, James City County, York County, Newport News, Hampton, Virginia Beach, Norfolk, and Chesapeake). The Center provides valuable education programs for businesses via the College of William & Mary's (CWM) Mason School of Business, support services for two area technology business incubators and area businesses. I Chair two technology forums for sensor technology, and help link faculty, industry, and government for collaborative funding opportunities via various programs through the Hampton Roads Research Partnership. We also work closely with Virginia's Center for Innovative Technology. The SBIR program is vital to our regional efforts.

Background

The SBIR program, in my opinion, has been extremely successful. Given its huge size, with over \$2 billion available for award, it has, in general, been well managed and has provided the participating agencies with critical technology and products. The Program has provided a valuable impetus to the participating small businesses in helping them to create their success path. In fact, many companies are founded upon receipt of a Phase I award. Their subsequent growth in jobs created, revenues generated, and hence taxes paid, have provided considerable benefit to their local regions, especially distressed areas, and to the nations economy. Academia has benefited as well through increased research funding and jobs for graduates. However, there are areas where the Program could and should be improved, both in output and efficiency.

This Testimony will primarily focus on Phase I Program issues, and will address a critical but so far largely ignored, issue concerning Phase I recipients. Some general comments on the overall Program will be included. An appendix of additional information is provided. Comments from two companies is included.

The SBIR Program, now 25 years old, was designed to stimulate high-risk technological innovation in the private sector; to strengthen the role of small business in meeting Federal research and development needs, and to increase the commercial application of these research results. Over 16,000 companies have participated; approximately 6000 companies are currently active in SBIR/STTR projects. It is the ONLY Federal program that uniquely addresses small businesses. There are three components of the Program: Phase I, Phase II, and Phase III. The Phase I (typically \$70,000 to \$100,000) & Phase II (typically \$200,000 - \$750,000) are funded; Phase III requires the company to find customers for the resulting Phase II technology. It should be noted that these levels were established in 1992. A Phase I project takes 6 months. A Phase II project is typically 18 – 24 months. However, the total cycle can take up to 42 months including award and assessment time.

The Program has been particularly successful in the State of Virginia, which ranks 3rd in Program awards. Since inception, over 4000 Phase I projects have been awarded to 816 companies. Approximately \$1.24 billion has been awarded for Phase I and Phase II projects since 1983. Currently, there are 992 projects underway involving 276 firms. The DoD, in 2005, provided 75% of the awards with NASA second with 12%.

Approximately 40,000 people are employed by Virginia firms completing Phase I and Phase II projects.

In Hampton Roads, some examples include Applied EM, Echo Storm, AeroTech, Nascent Technology (now Luna Innovations), Abeo, Oceana Sensor, Par Technologies, Tao Systems, and many others. These companies all started with one or two employees and, helped with SBIR funding, have all grown to 10 – 40 employees and significant revenues.

Program Benefits

The program provides a very wide range of benefits. Some of these include:

- Considerable highly innovative technologies and products provided to the 11 participating agencies (over 60,000 patents filed and awarded).
- Fosters valuable linkages between Government and Small Businesses.
- Greatly expands government knowledge of and access to important technology.
- Provides critical financing for start-up and small companies (small businesses employ 39% of the Nation's engineers) and hence new jobs.
- Assists technology entrepreneurs to pursue their technology path to create products and services for government and the private sector.
- Provides a vehicle for the development of critical business skills.
- Contributes to regional economic development, especially in distressed areas.
- Creates valuable research opportunities for academia and jobs for graduates.
- Provides funding for graduate level and other students.
- Generates long-term relationships with government, industry, and academia.
- Encourages industry-academia collaboration.

- SBIR funding often creates opportunities with other funding sources, e.g. a corporate partner, customer, Angel Investor, CIT GAP Fund, etc.

Phase I Commentary

Phase I provides limited funding for a feasibility study of a potential new technology. Funding often occurs at the critical beginning stage of a start-up or small firm which should ultimately lead to a prototype and a saleable product. However, many early-stage technology entrepreneurs have yet to develop critical business skills. Therefore, while they may be extraordinary scientists and technologists, their lack of appropriate business skills potentially endangers the successful outcome of their SBIR (and other) projects. This will be most apparent during Phase II and Phase III projects where skill sets are insufficient to deliver the desired outcome.

Phase I Program Issues and Recommendations

- **Award Time**

There are often considerable delays for proposal evaluation and award; sometimes over a year! CWM and a partner submitted two SBIR proposals to OSD over a year ago with still no answer.

Solution:

Establish and enforce a maximum 90-day evaluation and notice-of-award period.

- **Criteria for Evaluation and Evaluation Quality**

Proposal evaluators often favor proposals that include a basic prototype even though Phase I is for research and feasibility studies to determine Proof-of-Concept and not for prototypes. Furthermore, many superior innovations are not funded because of a lack of understanding by the reviewer. This is a serious issue which discourages many competent companies from participation.

Solutions:

1. The SBA should clarify Phase I & II rules and enforce them.
2. Ensure that proposal reviewers are properly qualified (enlist retired volunteer professional engineers, scientists, etc.) and that awards are let on merit and not "slick writing" or a lack of reviewer competence.

- **Funding Cap**

The current recommended funding cap of \$100,000 was established in 1992 and is woefully inadequate for today's businesses. The recommendation of the Senate Small Business and Entrepreneurship Committee to increase the Phase I and Phase II caps to \$150,000 and \$1,250,000 respectively (S. 3778) needs immediate 2008 implementation.

- **Contractor/Sub-Contractor 2/3 – 1/3 Ratio**

Phase I criteria requires that the primary contractor retain a minimum of 2/3 of the contract, with 1/3 available for sub-contracting. Few small business firms possess the necessary project skills on staff, therefore frequently requiring subcontract arrangements with industry partners, academia, or both. Subcontracting with academia can be especially valuable because very deep and sophisticated skills can be accessed for complex research studies.

Furthermore, once established, academic relations can prove to be extremely useful to a company as they progress. In fact, HSARPA encourages companies to utilize academic participation in their SBIR program.

Modern industry favors collaborations as a way to improve and strengthen their respective competitive offering. Therefore, the SBIR program should encourage collaborative approaches where merited.

Issue 1

The current funding cap combined with the split policy creates a major limitation for academic involvement in the Program. Colleges/Universities must charge overhead, typically 50%, to federal grants. Therefore, a \$33,000 award to a college will normally result in only \$16,500 - \$21,000 (depending on how the college computes its overhead) to the researcher. This may serve for minor requirements but certainly not for any meaningful research requiring employment of graduate students and reasonable professor time. Furthermore, many professors simply cannot engage in projects with such limited funding

Issue 2

The 33% will not go very far amongst one or more subcontractors, thus reducing the potential quality of the desired outcome.

Solutions:

1. Change the SBIR split ratio to 55/45.
2. Provide supplemental overhead funds to college/university proposals.

- **Company Mentoring**

The path from Phase I award to successful Phase III implementation is long and highly complex. Company founders and new managers, while often technically brilliant, usually fall well short of a decent grasp of business processes and therefore are highly prone to failure without effective guidance and mentoring. This knowledge gap will not always be evident during Phase I because it is primarily a technical engagement. However, Phase II demands sound business knowledge; serious finance knowledge, sales, marketing, marketing research, business plans, logistics, manufacturing, quality, and more all come into play. The lack of adequate knowledge is why so many firms struggle or fail during the Phase II and III processes.

Congress has emphasized the need for Phase III commercialization in recent years. As a result, approximately 40% of Phase II companies have achieved some degree of commercialization, a very good result. This result has been helped by several new programs, e.g. the excellent NIH Commercialization Assistance Program (CAP), Niche Assessment Program (NAP) for Phase I awardees, and the pilot Manufacturing Assistance Program (NAP). The new Commercialization Pilot Program (CPP) is beginning to help bridge the gap between promising defense R&D and the DoD acquisition system. The Navy program seems particularly responsive, and their Dawnbreaker Program provides some structured process education but is not closely coupled to the real needs of companies.

However, **Commercialization is At the End of the Process!** No current programs specifically address the core issue: the skills and competencies of small company management and their ability to move through all phases of company , and hence product, development. It is a well know statistic that companies engaged in good incubator programs or other formal mentoring programs have a far better chance of survival (the National Business Incubation Association reports that 85% of incubated business survive over 5 years; over 75% of non-incubated companies fail within 5 years.)

Therefore, Phase I, Phase II, and Phase III performance could increase dramatically if management tutoring programs were introduced at the Phase I stage instead of focusing only on specific tasks of late stage Phase II and Phase III assistance, which is largely technical and not managerial in nature. Risk assessments are mostly based on technology and not management. Funding sources, Venture Capitalists, Angels, strategic partners, always look for management first, products second. Furthermore, superior business skills will lead to faster growth, more jobs, more taxes paid, and a better return on the SBIR investment dollar due to superior company performance.

Many colleges and universities have educational and entrepreneurial programs to help entrepreneurs. For example, The CWM Mason School of Business and the TBC has developed and presented a rigorous five-module business education program to the two area technology incubators. The majority of the program's funding came from Virginia's Center for Innovative Technology (CIT). Several of the companies are SBIR Phase I and Phase II awardees. All have commented on the values of the program. Another important benefit is that through such programs, companies develop valuable college/university relationships which will help them throughout their company-building careers. Most importantly, the SBIR/ STTR program will benefit from the superior performance of properly mentored companies.

The TBC has also provided training workshops for NASA-Langley SBIR Phase II awardees.

A description of the Mason School of Business/TBC Business Education Module Program is provided in the Appendix.

Solutions:

1. Through academia, establish mentoring training programs for Phase I awardees and continue through Phase II and III.
2. Reinstate the SBA FAST (Federal and State Technology Program and RO (Rural Outreach) programs. These funds could be utilized to establish mentoring – training programs. The CIT Federal Funding Program was initially funded by the FAST program. Their SBIR support programs have been extremely successful in helping Virginia become #3 in overall SBIR funding.
3. Consider taking 1% of total SBIR dollars to support early stage mentoring programs as recommended by the SBTC (Small Business Technology Council) to the Senate in 2007.

General Comments

- **Increase Funding**

Increase overall program funding from the current 2.5% to 5% in yearly increments of 0.5%. Currently only 4.3% of federal R&D dollars go to small companies, in spite of the fact that they produce patents at a rate of 5:1 over large companies and that they employ 39% of the nation's engineers. Therefore, federal funding for small businesses should better reflect their superior performance.

- **Make the Program Permanent.**

The program has reached over 16,000 companies throughout America. It has stimulated the creation of thousands of companies and new, high-paying jobs. It has provided vital technology to government agencies from the military to life sciences; and has resulted in literally billions of dollars of economic activity. This should not be subject to justifying its existence every few years. Instead, spend the review energy on ways to improve and add even more value to the program.

- **Program Expansion**

The SBA should assist communities to develop infrastructures that would enhance SBIR success. An example of such an infrastructure is the Hampton Roads Research Partnership (www.hamptonroadsrp.org). This organization is a consortium of area colleges/universities, federal laboratories, industry and regional organizations that fosters collaborations for funding opportunities. As the Chair of its Sensor Cluster program, I routinely send out notices regarding current SBIR opportunities and help find appropriate collaborators where needed.

Additionally, the SBA should continually appraise local economic development agencies of successes in their regions and encourage them to assist companies to engage in the SBIR program.

The FAST and RO are possible vehicles to assist this process.

- **Website**

Access to SBIR information is complex. The www.sbir.gov website should be made much more user friendly with more useful information. The previous www.sbirworld.com site was far more useable and informative.

- **Phase II to Phase III Path**

Many SBIR projects are for very specific military or government needs with little or no external commercialization potential. Therefore, agencies need to take care that, for such projects, that there is either funding for the Phase III stage or requirements in other agencies for the technology. Increased inter-agency collaboration would be a big step forward.

New Program additions such as Phase IB and Phase IIB certainly help, but agencies need to take responsibility for procuring successful Phase II products and services. And, additional monies must be added to the program to support these additions.

Conclusion

Thank you again for this opportunity to present some ideas and opinions concerning the SBIR program. My conclusion is that the SBIR program has been enormously successful. There can be no doubt that the 25 year old SBIR program should be continued permanently, provided increased funding, and be strongly promoted.

Appendix

College of William & Mary Mason School of Business and Technology & Business Center Technology Business Strategic Education Module Program

Introduction

The Technology Business Strategic Education Module Program (TESEMP) has been designed by the College of William & Mary's Technology & Business Center (TBC) in conjunction with the Mason School of Business. The TESEMP provides a very high level educational program designed to maximize the growth potential and sustainability of early stage technology businesses with high growth potential.

These technology businesses are generally pre-revenue start-ups or early stage companies founded by entrepreneurs who often have little business experience. While they may be technically brilliant, their real knowledge of critical business practices is limited. Unfortunately, their lack of knowledge greatly hinders their progress. This program is designed to provide a series of critical business education modules that will greatly enhance their knowledge of important business issues and processes.

The Technology Business Strategic Education Module Program

The TESEMP will provide a very high-level educational program to high potential early stage, young, high growth, and start-up technology companies. The program is particularly suitable for companies in SBIR programs. It is based on 5 educational modules that will be taught by Mason School of Business Professors with assistance from the Technology & Business Center.

The Modules include:

- Strengths Weaknesses Opportunities Threats Analysis (M1)
- Strategic Business Planning (M2)
- Essentials of Finance (M3)
- Sales and Marketing (M4)
- Operations and Business Processes (M5)

Module 1 is performed first for each client to establish a baseline of their status.

Modules M2 – M5, will be run as a sequence, typically over a 4 - 5 month period, or can be provided individually for other requirements.

The courses are taught by the following Mason School of Business Professors:

- Dr. Hector Guerrero, Associate Professor, SWOT Module
- Dr. Brent Allred, Associate Professor, Strategy Module
- Dr. Vladimir Atanasov, Assistant Professor, Finance Module
- Dr. Ronald Hess, Associate Professor, Sales/Marketing Module
- Dr. James Bradley, Associate Professor, Operations and Processes Module

This Program will provide a superior level of educational and practical to high growth potential technology companies, especially SBIR awardees, and incubator clients and will create an integrated relationship between the Mason school of Business and the technology community.

Contact: William Bean, Technology & Business Center,
College of William & Mary
402 Jamestown /PO Box 8795, Williamsburg, VA 23187
Tel: 757-221-7825
Email: webean@wm.edu

Following are comments from two Virginia SBIR companies

Luna Innovations, Roanoke, VA

Technology innovation is a key engine for growth in an increasingly global and competitive marketplace. According to the National Science Foundation, more than \$340 billion was spent in research and development in the United States in 2006 as follows: 28% by federal agencies, 71% by the private sector, 1% by academic institutions and not-for-profit organizations.

However, the transition from technology discovery to commercialization is challenging, and government agencies, academic institutions and corporations frequently lack formal processes to enable timely commercialization of technologies in response to marketplace demands. One problem is that research and development is often done in isolation, without input or feedback from the marketplace. In addition, due to the inherent complexity of new technologies, cross-disciplinary and integration issues are often not addressed because researchers, engineers and product developers have very specialized areas of expertise. Moreover, research organizations may be unable to commercialize technologies because their networks may not be broad or deep enough to connect them expeditiously with partners, investors and customers. Development efforts can also fail for a host of other reasons, such as inability to manufacture at commercial scale, unanticipated competition or poorly understood customer needs.

Luna Innovations Incorporated is a top nationally ranked recipient of Small Business Innovation Research (SBIR) awards and a three-time award recipient of the Tibbetts Award, a highly prestigious, national award presented by the Small Business Technology Council that is given to companies judged to best exemplify the philosophy and doctrine of the SBIR program. By leveraging R&D performed through the SBIR/STTR (Small Business Technology Transfer) programs, Luna has developed a disciplined and integrated process to accelerate the development and commercialization of innovative technologies. Our business model employs a market-driven approach and provides the infrastructure, resources and know-how throughout the process of developing and commercializing new products:

- Searching for emerging technologies based on market needs;
- Conducting applied research;
- Developing and commercializing innovative products; and
- Applying proven technologies and products to new market opportunities.

Specifically, the SBIR/STTR programs accelerate product development by adding resources which are utilized during applied research and development.

The strength of this business model is exemplified by our successful track record in taking innovative technologies from the applied research stage through product development and ultimately to the creation of independent businesses. For example, the following SBIR/STTR success stories illustrate some of these successes.

Luna's nanoWorks Division is developing carbon nanomaterials technologies for medical diagnostics, therapeutics and organic solar cells. This Division was made possible through a variety of federal funding awards including:

- NSF SBIR/STTR programs that focused on synthesis and purification; and
- NIH SBIR programs for targeted MRI imaging of blood clots and of the brain.

In 2002, Luna Innovations, using technology developed under U.S. Navy, Air Force and National Institutes of Health SBIR programs, launched Luna iMonitoring for remote asset management. By October 2003, IHS Energy was interested in the line of solar-powered, wireless sensing devices and acquired Luna iMonitoring. Luna's technology allowed IHS Energy to augment its popular Web-based well-data collection system with remote monitoring technology, making automation affordable for the oil and gas industry. After acquiring the company, IHS began full-scale production of 'iNodes' – a suite of wireless sensing devices helping the petroleum industry to optimize oil production.

Luna recently formed an IP licensing, development and supply agreement with Intuitive Surgical, Inc. the global technology leader in robotic-assisted minimally invasive surgery. Luna will develop and supply its fiber optic-based shape sensing and position tracking system for integration into Intuitive Surgical's products. Luna's shape sensing platform was developed using multiple SBIR contracts, which funded the fiber optic sensing technology and demodulation system design.

Lastly, Luna's EDAC® QUANTIFIER is an innovative medical device that applies quantitative ultrasound technology to non-invasively detect the presence of air emboli in an extracorporeal circuit during cardiopulmonary bypass surgery. Initial funding in development of the underlying technology came from a Navy SBIR, which proposed the use of Luna's ultrasound technology to monitor blood and tissue to prevent Decompression Sickness, a condition that is suffered by a person exposed to a sudden change in barometric pressure, such as the decrease in pressures during underwater ascent. The EDAC® received an FDA Clearance letter in May 2007.

Opportunities exist to improve the SBIR/STTR program. Initially, we need to reauthorize funding for continuation of this important program while reevaluating possible funding levels for appropriateness. We should continue to identify the Federal end-users for the program topics to expand the program depth. Likewise, an increase in the participation of large prime contractors with the SBIR program will increase the rate of technology insertion. To summarize, Luna is focused on developing and commercializing a growing portfolio of innovative products with the assistance of the SBIR/STTR program.

In a 2006 interview with the Navy's *Transitions* newsletter, Kent Murphy, Chairman and Chief Executive Officer of Luna Innovations, said, "The SBIR program has been the foundation upon which we have built our business. It is very hard for a small, rural company to get the necessary resources to grow its business. SBIR contracts have provided Luna with the initial funding needed to develop more than a dozen products for use in industrial process control, energy production, life sciences and defense. To date, Luna and its subsidiaries have created more than 250 high tech positions throughout Virginia. Without the SBIR process, we probably wouldn't be here today."

MYMIC LLC, Portsmouth, VA

MYMIC LLC is an SBIR success story in progress. MYMIC is a HubZone certified, Service Disabled Veteran Owned Small Business located in Portsmouth Virginia. MYMIC started seven years ago and has grown to approximately thirty employees. MYMIC supports military, government and private sectors customers with knowledge and technology to enhance decision making and provides integrated capabilities using modeling, simulation, and visualization supported with analysis, assessment and training solutions.

MYMIC won its first two SBIR Phase I efforts in 2006. Since then, MYMIC has been a very active participant in the SBIR program, winning an additional six Phase I efforts and just recently winning a Phase II effort. Although MYMIC conducts non-SBIR efforts, the SBIR program has been essential to our success, which has included doubling our work force.

The advantages of the SBIR program to a small business such as MYMIC are numerous. The SBIR program allows MYMIC to identify and bid solutions for Government problems, expanding our understanding of the nation's needs and positioning us to fulfill those needs. It allows us to create inherent corporate capability and hire a work force with advanced skills. It fosters cooperation between us and other companies and academic institutions, spreading the program's benefits, while maintaining beneficial competition.

Our experience is that other small business programs do not provide the benefits of the SBIR program. We participate as sub-contractors on teams led by large businesses, but the role of small businesses under these contracts has generally been to provide individuals with expertise. This does not foster the creation of inherent small business capability. Small business set-asides are generally too large and wide for start-up small businesses and small businesses with specific capability to execute.

Most importantly, we believe the SBIR program provides tremendous benefit to the country, far exceeding its investment. The inherent benefits of a healthy small business community are obvious enough that we feel we do not have to repeat them. The perhaps less obvious benefit of the SBIR program is the harnessing of the expanse of the American free market for the generation of solutions to Government problems. If every SBIR topic generates only twenty Phase I proposals, those are twenty separate ideas from possibly the most creative and entrepreneurial minds of the country. The two to five companies selected for Phase I funding will report back on detailed and innovative advancements within the topic's field. The Phase II effort has the potential for creating a prototype solution that could revolutionize the field. We feel that our own Phase II effort, upon which we are embarking, will generate a product whose utility will go far beyond the limits of the associated SBIR topic.

As with all programs, however, we feel there is room for improvement. We have two recommendations. The first deals with the mandatory levels of effort by the small business. For an SBIR Phase I, this is two-thirds. We assume that this rule is in place to ensure the SBIR program is targeted towards small businesses and is not abused. However, this limit increases the difficulty of participating in the program. Our experience is that small businesses do not possess all the capabilities required to create a solution. The small business, therefore, has to team with other organizations to

access the requisite capability. We believe this is good; it helps the small business develop important strategic partnerships, maximizes the utility of proposed solutions, and spreads the benefits of the SBIR program. However, the one-third limitation on participation by team members generally restricts participation to only one partner, which in turn artificially restricts the overall capability that the small business can build to address the problem. We would recommend decreasing the minimum effort of the small business from the current two-thirds to half, matching the mandatory Phase II level of effort, or even matching the STTR limit of two-fifths.

The other recommendation is to shorten the time between submission of a proposal and the announcement of an award. We have experienced a ten month gap between submission of a Phase I proposal and the awarding of SBIR Phase I work. We have another proposal submitted nine months ago about which we are awaiting a decision. Small businesses are not in a position to absorb this level of uncertainty. It adversely affects cash flow and personnel plans. More importantly, the teams built to submit a solution, as discussed above, cannot sustain themselves over such long periods. In the case of the above mentioned SBIR with the ten month gap before award, a key academic participant has gone overseas on sabbatical. Had there been a timely award, we would have completed the six month Phase I prior to her travel. Now we are accomplishing the work but with the added difficulties of coordinating and collaborating via email while she executes her contribution around her sabbatical work.

MYMIC strongly believes in the SBIR program and whole-heartedly supports its continuation. MYMIC looks forward to growing under the program while providing great value to the Government.

Technology & Business Center at the College of William & Mary

The Technology and Business Center links companies to William and Mary resources. We are particularly interested in helping technology and other knowledge-based companies. We want to make it easy to get access to faculty who are interested in collaborative research and consulting.

We generally arrange an initial meeting with company representatives to help identify potential areas of collaboration. In subsequent meetings, we arrange discussions with faculty members who have skills in the targeted areas. Collaborations can include applications for grant funding or arrangements for faculty and students to pursue consulting projects. We have substantial experience in helping companies with Small Business Innovative Research (SBIR) proposals. We also have very active connections with programs in the [School of Business](#) including the CORP Program, the Entrepreneurship Center and the Field Consultancy Program.

Because of our extensive contacts, we can also provide connections with companies and other research organizations and universities in our region. For example, the Center plays a leadership role under the auspices of the Hampton Roads Research Partnership in promoting the development of a regional sensors cluster. The Center is also active in helping to identify new partners for the Virginia Institute of Marine Science, a William & Mary Campus [VIMS-Industry Partnership Committee](#).

We are interested in working with you in virtually any area of technology or other knowledge-based applications. Recent projects have included collaborations in the areas of marketing, financial management, modeling and simulation, bioinformatics, marine science, homeland security, sensors, information technology, anthropology, psychology, aging and geriatric health, and clinical trials. Additionally, we have created with the Mason School of Business a series of educational models for businesses. These modules are particularly appropriate for small companies engaged in SBIR projects. If we do not have the appropriate resources available at William and Mary, we will be happy to help direct you to resources that may be available elsewhere.

Our staff includes a Director and two student interns. We also draw on the resources of the Office of Economic Development and the [Technology Transfer Office](#). We receive advice and support from a group of CEOs of local knowledge-based companies.

Our primary funding support has come from an Economic Development Agency grant via the Hampton Roads Research Partnership. That funding supports our work with a number of clients, including those in the Hampton Roads Technology Incubator in Hampton and in its new branch in James City County. We have also received funding from the Crossroads Group, the City of Williamsburg EDA, James City County, and the City of Portsmouth. BB&T Bank provides funding for our student interns.

We look forward to the chance to work with you! Please [contact us](#).