



# MISSISSIPPI DEFENSE DIVERSIFICATION INITIATIVE



## Opportunity & Growth Program/ Innovation Strategies for MDDI Target Audiences

**PROMOTING INNOVATION,  
DIVERSIFICATION AND COOPERATION IN  
THE MISSISSIPPI DEFENSE COMMUNITY**



THE UNIVERSITY OF  
SOUTHERN MISSISSIPPI

MSDEFENSE.NET  
AA/EOE/ADA/ UC 78138 3.18



# Mississippi Defense Diversification Initiative

Opportunity & Growth Program/Innovation Strategies  
for MDDI Target Audiences:  
Large Companies, SMBs, Federal Labs, Assistance Providers

July 2017

**MARTLET**  
STRATEGIES



SHANNON CAMPBELL, USM  
HAIMES A. KILGORE LTC(R), USM  
MARY MACPHERSON, MARTLET STRATEGIES

*This document was prepared under contract with the National Security Technology Acceleration Support and Economic Diversification Efforts for the State of Mississippi, with financial support from the Office of Economic Adjustment, Department of Defense. The content reflects the views of the National Security Technology Acceleration Support and Economic Diversification Efforts for the State of Mississippi and does not necessarily reflect the views of the Office of Economic Adjustment.*

## Abstract

As work on the grant began and companies who could participate in defense diversification activities were identified, the MDDI team created a programmatic framework for opportunity and growth for companies that included a variety of strategies and programs for defense diversification.

Initially, the target audiences for technical assistance were identified as:

- Large Companies (\$20mm+ in defense revenue)
- Small and Medium Businesses (SMBs) (initially \$2mm+ in defense revenue, but modified to be any revenue)
- Federal Labs (US Army Engineer Research and Development Center (ERDC) and the Naval Research Lab (NRL))

In addition, organizations in the MS Defense Ecosystem who provide some type of technical assistance to businesses and entrepreneurs across the state were included.

In the course of identifying companies and reaching out to them to invite them to participate in the statewide initiative, the USM team found it difficult to engage companies, largely due to time constraints and contractual commitments of the companies. Accordingly, the target numbers set at the outset were scaled back.

In the case of the Federal Labs, each had unique timing or circumstances that precluded their participation in the MDDI. For ERDC, it was the launch of a new economic development strategy and new players; for NRL, it was the fact that strategy and programs were determined at the headquarters level, in the Washington DC area.

The focus of the MDDI Opportunity and Growth Program was narrowed to a smaller number of willing and interested large companies and SMBs, along with a core group of technical assistance providers, now called MDDI Network Partners.

This report describes the broadest scope of the Opportunity and Growth Program to support defense diversification in Mississippi and reflects adjustments made throughout implementation. Many of the components have been implemented during the first phase of the grant.

## Mississippi Defense Diversification Initiative OPPORTUNITY AND GROWTH PROGRAM/INNOVATION STRATEGIES OVERVIEW

*MDDI workshops and strategy sessions for large companies, small and medium businesses and researchers/scientists at Federal Labs, ERDC and NRL*

*Developed Fall 2016-Spring 2017*

*Updated Spring 2018*

MDDI is focused on three target audiences in this program:

- **Small and Medium Businesses:** Implement targeted defense diversification program for Mississippi tech companies meeting established criteria and provide connections, knowledge, access and tools to enable them to discover and enter new markets and connect into the business ecosystem locally and nationally.  
**Program Goal:** *Through a filtering process, MDDI aims to work with approximately 10 companies who are diversifying their businesses and moving into commercial markets.*  
**Update:** *Work directly with three (3) companies.*
- **Large Companies:** Explore trends and best practices in harvesting intangible assets and involving specific “drill-down” strategies such as partnerships, joint ventures, licensing, business format franchising, spin-off’s and spin-out’s, the sale of strategic business units to management teams, incubators, accelerators, greenhouses and even corporate venturing and venture capital arms.  
**Program Goal:** Individual engagements with 3-5 large companies who will explore expansion in their supply chains and innovation in harvesting intangible assets.  
**Update:** *Work directly with 1-2 companies.*
- **Scientists/Researchers in Federal Labs:** Collaborate with labs to implement a model for scientists/ researchers with interest in moving from the bench to the market to enable them to navigate the process of taking a product designed for a specific project into commercial markets.  
**Program Goal:** *MDDI aims to work with 2-3 researchers/scientists in Federal Labs who want to enter commercial markets.*  
**Update:** *Deferred du to factors internal to the Labs.*

To ensure knowledge transfer and position Mississippi for sustainability, a focus on Mississippi business assistance providers was added. MDDI Network Partners operating across the state would be identified and offered opportunities to experience, learn and utilize tools developed under the grant. The approach would be to open up workshops and webinars to assistance providers working directly with SMBs.

### **Small and Medium Businesses:**

USM has been conducting an extensive analysis of Mississippi companies to identify those who would be candidates to participate in the Opportunity and Growth Program. These are typically categorized as growth or second stage companies, rather than early stage or startup ventures; they are



established companies who want to build on expertise they have developed on technical government contracts enabling them to expand and/or enter new markets.

For SMB's, there is a rich set of content under the general title Business Growth Strategies and Best Practices that could be delivered in half-day or day-long workshops. As a statewide initiative, programs for the Mississippi Defense Diversification Initiative would take place in key locations across the state.

Below is a description of content for SMBs which could be tailored to one of the targeted industry sectors if there is critical mass in a particular location.

<i>Business Growth Strategies and Best Practices and Harvesting Intangible Assets (Customized to focus areas and industry sectors within the targeted ecosystem)</i>	
<ul style="list-style-type: none"> <li>Trends and Best Practices in Formulating Effective Business Growth Strategies</li> <li>Growth Strategies Decisional Matrix</li> <li>Harvesting Intangible Assets</li> <li>Best Practices in Common Growth Strategies</li> <li>Go Deep v. Go Wide</li> <li>Buy v. Build Analysis</li> <li>Ecosystem Analysis</li> </ul>	<ul style="list-style-type: none"> <li>M&amp;A Strategies</li> <li>Organic Growth</li> <li>Technology Licensing (Inbound/Outbound)</li> <li>Joint Ventures and Alliances</li> <li>Brand Merchandise and Character Licensing</li> <li>Business Format Franchising</li> <li>Best Practices in Cross-Border Business Growth</li> </ul>

SMBs would have access to tools for evaluating new business launches, including the proprietary MIME™ System, which covers markets, intellectual capital, management (governance/advisors/human capital) and economics and business models. Using an interactive case study approach, participants would gain knowledge to advance their businesses.

Some of the content used for large companies in exploring new approaches to innovation and supply chain optimization is available for SMB's to educate/inform them on working with larger companies. The content in Spin-Outs/Spin-Offs is also relevant to SMBs as they and/or their technology could be key players such transactions.

**Large Companies:**

While the programs for researchers/scientists and SMB's could involve both webinars and group workshops, the MDDI Opportunity and Growth Program for large companies is highly personalized, with company engagements recommended to be led by Andrew Sherman, under contract with Martlet Strategies. In these engagements, and based on the needs of the company, the approach could be designed around (1) identifying existing intangible assets that could be leveraged into new opportunities and possible structures to support those endeavors, (2) growing their supply chains to include more Mississippi suppliers and (3) using the SBIR/STTR program as a means to engage SMBs and entrepreneurs and leverage federal dollars for innovation collaboration.

USM is working to identify companies in the Blue Economy, Aerospace and Defense and National Security sectors whose leadership is committed to strengthening Mississippi’s regional economy through innovation, including leveraging intangible assets and introducing new models of collaboration. USM will partner with the Manufacturing Extension Partnership housed at USM’s Polymer Institute to engage large manufacturers in diversification initiatives as well.

The content for large companies includes a broad set of practices and tools that can be implemented, based on a company’s specific goals and interests, within the framework of Harvesting Intangible Assets.

<i>Driving Shareholder Value and Economic Growth through the Harvesting of Intangible Assets</i>
Key Trends and Best Practices in Innovation Management Intellectual Capital and Harvesting Intangible Assets IP Law Primer Business Growth Strategies and Harvesting Intellectual Capital Moving from Ideas to Innovation The MIME™ System Innovation Structures: Joint Ventures, Strategic Alliances, Incubation, Strategic Investments, Corporate Venture Capital, Teaming

Since spin-offs and spin-outs are likely structures for commercializing innovation, additional content is available that could be delivered to a general audience or tailored to teams who are seriously considering taking this course.

<i>Spin-Off’s and Spin-Out’s: A Guide for Medium-Sized and Larger Companies</i>	
Best Practices Anatomy of a Spin-Off Structural Issues	Operational Issues Tax Considerations

It is anticipated that engagements with large companies will be shaped to meet their specific needs, so this framework is presented as guidance and to show the breadth of content available to be delivered.

**Federal Labs: ERDC (Vicksburg)**

ERDC expressed interest in finding opportunities for its researchers and scientists to explore commercializing new innovations they have developed and to support innovation-based economic development in the Vicksburg region. There is a linkage to new thinking and leadership in Vicksburg to foster a creative and entrepreneurial community in the historic city and create opportunities for collaboration; attract business growth; and develop innovation-driven talent.

Below is an overview of content that could be developed and delivered for ERDC.

- **Introduction to MDDI and *From the Lab to the Marketplace*:** Overview of MDDI and resources for the labs, introduced by USM. Andrew Sherman’s content could include topics like thinking differently for researchers/scientists, building a culture of innovation, hurdles to innovation and IP law 101. The aim of this webinar would be to give lab leadership a good sense of what outcomes might be expected by engaging in this project and to get them excited to promote it to their researchers.
  - To be delivered as a 1 hour webinar.
- **Thinking Differently:** The next session, also a webinar, would target the researchers/scientists to engage them, showcase their work and look at possibilities for productizing. There would be a short intro to MDDI given by USM, and then Mr. Sherman would be introduced to recap some of the first webinar’s content, tailored to researchers. The aim of this session would be to cast a wide net and identify a smaller group of 20+ who are seriously engaged in the notion of commercializing their work and who would then attend an in-depth, in person workshop.
  - To be delivered as a 1 hour webinar.
- **Harvesting Intangible Assets and Innovation Best Practices:** This session would cover how to distinguish ideas from opportunities; types of ideas and innovation; decision funnels; the MIME™ System of screens and filters and opportunity analysis. The aim of this session is to provide sufficient information to inspire researchers/scientists to move their ideas and prior work into action, from introducing their concept to business planning. The approach will utilize the business model canvas and encourage researchers to engage with the ecosystem.
  - To be delivered as a 3-4 hour workshop at ERDC.

<u><i>Start Fast Start Right: Tools for Evaluating Start-Ups and New Business Launches</i></u>	
Strategic Process of Entrepreneurship	The MIME™ System (Screens and Filters)
Distinguishing Ideas vs. Genuine Opportunities	Applying MIME: A Case Study
Types of Ideas and Innovation	Best Practices in Opportunity Analysis
Decisional Funnels	Avoiding Start-up/New Launch Deal Killers

<u><i>Harvesting Intangible Assets and Innovation Best Practice</i></u>	
Key Trends in Innovation	Uncovering Imbedded or Non-Obvious Intangibles
Innovation and Intrapreneurship Best Practices	IP Law 101
Building A Culture of Innovation	IAM Systems
Common Hurdles to Innovation	Strategies for Harvesting Intangible Assets

Following these sessions, a targeted group of researchers/scientists from ERDC who intend to pursue product development could participate in an in-depth version of the MIME™ System. Collaborating with USM could provide access to resources they would need for venture creation, including

information on markets, IP protection, team formation, management, advisory boards, economics, business modeling and MDDI networks. With sufficient interest from ERDC, USM could potentially provide onsite support for business plan development using the business model canvas or other lean tools and build a long-term, ongoing relationship with ERDC.

#### **Federal Labs: Naval Research Lab (Stennis)**

Because of the relationship that NRL has with its headquarters in the DC area, NRL is most interested in generating research dollars through an increase of SBIR grants that can be worked on by NRL researchers but also small-to-medium sized businesses who might be interested in locating at NRL.

Content for NRL would be developed based on the strategy that NRL intends to implement. The sector focus would be on the Blue Economy, particularly unmanned maritime innovations and SBIR/STTR components will be incorporated throughout.

- **Introduction to MDDI and *From the Lab to the Marketplace*:** Overview of MDDI and resources for the labs introduced by USM. Andrew Sherman's content could include topics like thinking differently for researchers/scientists, building a culture of innovation, hurdles to innovation and IP law 101. The aim of this webinar would be to give lab leadership a good sense of what outcomes could be expected by engaging in this project and to get them excited to promote it to their researchers.
  - To be delivered as a 1 hour webinar.

#### **About Martlet Strategies**

Martlet Strategies builds impactful partnerships between the federal government and regional stakeholders to foster economic growth and diversification. <http://www.martletstrategies.com/>

#### **About Andrew J. Sherman, Esq.**

Andrew Sherman is a partner in the Corporate Department of Seyfarth Shaw LLP and serves as the Corporate office chair for the Washington, D.C. team. He focuses his practice on issues affecting business growth for companies at all stages, including developing strategies for licensing and leveraging intellectual property and technology assets, intellectual asset management and harvesting, as well as international corporate transactional and franchising matters.

He has served as a legal and strategic advisor to dozens of Fortune 500 companies and hundreds of emerging growth companies. He has represented U.S. and international clients from early stage, rapidly growing start-ups, to closely held franchisors and middle market companies, to multibillion dollar international conglomerates.

Mr. Sherman has written nearly 30 books on the legal and strategic aspects of business growth, franchising, capital formation, and the leveraging of intellectual property and has published many articles on similar topics. He is a frequent keynote speaker at business conferences, seminars, and webinars and has appeared as a guest commentator on CNN, NPR, and CBS News Radio, among others, and has been interviewed on legal topics by The Wall Street Journal, USA Today, Forbes, U.S. News & World Report, and other publications.

Mr. Sherman serves as an adjunct professor in the M.B.A. programs at the University of Maryland and as well as the law school at Georgetown University and is a multiple recipient of the University of Maryland at College Park's Krowe Excellence in Teaching Award.



## Mississippi Defense Diversification Initiative – Overview for All Target Audiences

The table below describes strategies and approaches for three main target audiences for MDDI technical assistance.

Target Entity / Active Participants	Methodology/ Approach	Diversification Targets	Representative Activities & Deliverables	Resources	Timeline
<p><b>Large Defense Contractors (2)</b></p> <ul style="list-style-type: none"> <li>- Top MS companies or branches</li> <li>- Over \$20 million defense revenue</li> <li>- Strong supplier network</li> </ul> <p>(Examples: Huntington Ingalls, L3 Communications, Northrop Grumman, Lockheed Martin, CSC, European Aeronautic Defense &amp; Space Co., Golden Mfg, Eaton Corp.)</p>	<p>Identify top 2-3 companies to for consultation with Andrew Sherman to identify innovation pathways to diversification and to explore how to support Tier 2 suppliers to diversify.</p>	<ul style="list-style-type: none"> <li>• Harvesting Intangible Assets</li> <li>• Spinouts driven by innovation</li> <li>• Development of Tier 2 suppliers program</li> </ul>	<ul style="list-style-type: none"> <li>• Using a set of criteria, narrow down to 3-5 companies</li> <li>• Briefing for each company to introduce the program</li> <li>• Innovation Strategy Sessions -- meeting/workshop with Andrew Sherman and individual company leadership to explore options</li> <li>• Workshop for Tier 2 suppliers</li> <li>• Support for Tier 2 suppliers initiative</li> <li>• Access to ecosystem network</li> </ul>	<p>USM Martlet A. Sherman</p>	
<p><b>SMBs (50)</b></p> <ul style="list-style-type: none"> <li>- \$2+ million annual defense revenue*</li> <li>- In business 2+ years</li> <li>- Product vs service focus; multiple product lines; not a commodity</li> <li>- Possible product extension to commercial markets</li> <li>- Engaged leadership</li> </ul> <p>*Revised to include any revenue amount</p>	<p>Based on screens and filters, identify up to 50 companies meeting the SME criteria and introduce them to the MDDI OGP. Ultimately, identify 10 companies who will receive the 12-18 month program.</p>	<ul style="list-style-type: none"> <li>• MDDI Opportunity &amp; Growth Program</li> <li>• Market expansion</li> <li>• Geographic expansion</li> </ul>	<ul style="list-style-type: none"> <li>• Segmentation based on research and interviews with screens and filters to refine</li> <li>• Innovation Strategy Sessions – Harvesting Intangible Assets Workshops</li> <li>• Anatomy of a Spinout Workshop</li> <li>• MDDI Opportunity &amp; Growth Program Overview</li> <li>• MDDI Opportunity &amp; Growth Program Engagement (for 10 companies)</li> <li>• Linkage to larger companies (supply chain) and market access</li> <li>• Mississippi MindShare (TBC)</li> <li>• Targeted networking and events</li> <li>• Gap funding assistance</li> </ul>	<p>USM Martlet A. Sherman SBDCs Incubators</p>	
<p><b>Federal Labs*</b> (2-3 individuals at both sites)</p> <p><b>US Army Engineering Research &amp; Development Center</b> (Vicksburg) <a href="http://www.erd.c.usace.army.mil/">http://www.erd.c.usace.army.mil/</a></p> <p><b>NRL – Stennis Space Center</b> <a href="https://www.nrl.navy.mil/field-sites/stennis/">https://www.nrl.navy.mil/field-sites/stennis/</a></p> <p>*Deferred from this phase of the grant</p>	<p>Screens and filters to increase awareness of commercialization and to ultimately identify 2-3 participants at each site who will be selected for 12-18 months of individual support</p>	<ul style="list-style-type: none"> <li>• MDDI Opportunity &amp; Growth Program for Researchers</li> <li>• Spinouts</li> <li>• Commercialization</li> </ul>	<ul style="list-style-type: none"> <li>• Briefing Session for ERDC and NRL management</li> <li>• “Think Different” Workshop for Researchers</li> <li>• Entrepreneurial Self-Assessment</li> <li>• Anatomy of a Spinout Workshop (Researchers)</li> <li>• IAM Workshop</li> <li>• Regional ecosystem mapping</li> <li>• Engagement with broader business community (customer interaction)</li> <li>• Follow up individually with appropriate technical assistance from the right resource</li> <li>• Networking and events</li> <li>• Access to broader ecosystem/networks (e.g., 4M) (iBridge, COS)</li> <li>• Gap funding assistance?</li> </ul>	<p>USM Martlet A. Sherman SBDCs Incubators</p>	

## Mississippi Defense Diversification Initiative – Opportunity & Growth Program Detail for Companies, Entrepreneurs and Labs

The tables below describe the potential program content with each target audience. Final content will be determined based on need.

Large Companies	Description	Initial Delivery
<i>Customized strategic consulting for top defense contractors in MS (1-2 companies under OEA contract)</i>		
<b>Innovation Strategy Session (1)</b>	Meeting with company executives to review intangible asset management, harvesting intangible assets and corporate ecosystem mapping; Tier 2 supplier development strategies	Martlet/Sherman
<b>Innovation Strategy Session (2)</b>	Follow-up from first session	Martlet/Sherman
<b>Innovation Strategy Ongoing</b>	Support for ongoing activities	Martlet/USM

Opportunity & Growth Program for SMBs	Description	Initial Delivery	Ongoing Delivery
<i>Targeted defense diversification program for existing MS companies meeting program criteria and having Federal contracts with dual purpose products that could be used in commercial markets (20 companies under OEA contract)</i>			<i>See below under business assistance providers</i>
<b>Intangible Asset Management (IAM) Workshop</b>	Overview of MDDI program and Intangible Asset Management approach, IP review, tools for companies	Martlet/Sherman	
<b>Growth Strategies</b>	Defense diversification; Harvesting Intangible Assets; market identification analysis	Martlet/Sherman/Trent Lott Ctr	
<b>Ecosystem Mapping</b>	Detailed landscape of entrepreneurs and stakeholders; may be sector based	Martlet/USM	
<b>Mississippi MindShare (TBC)</b>	Exclusive, invitation-only network of CEOs from the most promising emerging and high growth technology companies in Southern Mississippi. Designed to build a sense of community among top entrepreneurs; fosters innovation, collaboration and mentorship among peers to strengthen networks, gain direct access to recognized thought leaders and advisors, and build long-term successful companies. Supported by top service provider stakeholders.	Martlet/USM TBD <i>Requires minimum of 20-25 participants a year to be effective and is an ongoing program that builds with alumni over time.</i>	
<b>Financing Your Business Playbook</b>	What entrepreneurs need to know to fund growth and expansion	Martlet/Evergreen/New Vantage	
<b>MDDI Ecosystem Network and Access to National Platform</b>	4M technology platform: Money, Management, Mentors, Market Channels Deployed regionally and	Martlet/Evergreen/USM	Replaced by MDDI and MD5/CMI2 platforms
<b>Access to MS Gap Funds</b>	Competitive program to receive up to \$\$ to access relevant resources	USM	

Opportunity & Growth Program for Scientists/Researchers in Federal Labs	Description	Initial Delivery	Ongoing Delivery
<i>Targeted program for scientists/researchers with interest in commercializing products they are/having been working on for Federal labs (2-3 each at ERDC and NRL-Stennis under OEA contract). Deferred under this phase of the grant.</i>			<i>See below under business assistance providers</i>
<b>MDDI Preview Workshop</b>	Overview of MDDI program and how labs fit in		
<b>“Think Different” Workshop</b>	Facilitated and structured session for researchers and scientists to share their projects with peers, brainstorm on possible application of projects in commercial situations. Designed to get participants thinking about the work as a product that could be monetized rather than basic research.	Martlet/Sherman	
<b>Anatomy of a Spinout Workshop</b>	Using relevant, real world examples from companies and labs, walk participants through the spinout process. Designed to explain the process and the steps; participants can opt out of program.	Martlet/Sherman	
<b>Entrepreneurship Self-Assessment</b>	For researchers to take a first look at whether they have what it takes to be an entrepreneur	Martlet/USM	
<b>Intangible Asset Management (IAM) Workshop</b>	Overview of MDDI program and Intangible Asset Management approach, IP Review, tools for companies	Martlet/Sherman	
<b>From the Bench to the Market Workshop</b>	Panel discussion with scientists/researchers who have successfully built companies from Federally funded research	Martlet/USM/Trent Lott Ctr	
<b>Growth Strategies</b>	Defense diversification; Grow Fast, Grow Right; market identification analysis (Shannon)	Martlet/Sherman/Trent Lott Ctr	
<b>Ecosystem Mapping</b>	Detailed landscape of entrepreneurs and stakeholders; may be sector based	Martlet/USM	
<b>Evergreen package lite</b>	The basics of funding your venture; content and templates	Martlet/Evergreen/New Vantage	
<b>MDDI Ecosystem Network and Access to National Platform</b>	4M technology platform: Money, Management, Mentors, Market Channels Deployed regionally and	Martlet/Evergreen/USM	
<b>Access to MS Gap Funds</b>	Competitive program to receive up to \$\$ to access relevant resources	USM	

Organization	Methodology/ Approach	Representative Activities & Deliverables
<b>University Incubators*</b> <ul style="list-style-type: none"> <li>- Define incubator vs accelerator</li> <li>- Segment all incubators in MS based on sector focus and resources</li> <li>- Define and create the MS Incubator Network</li> <li>- Position incubators for success</li> </ul> <p>*Removed from this phase of the grant.</p>	<ul style="list-style-type: none"> <li>• <i>Train-the-training &amp; capacity building</i></li> <li>• <i>Identify companies in incubators based on targeting criteria</i></li> <li>• <i>Provide training to optimize incubator results and reporting</i></li> <li>• <i>Based on program and course inventory, identify gaps and best practices and implement program narrow gaps and share best practices</i></li> <li>• <i>Provide training/train the trainer programs that incubators can deliver to targeted entrepreneur groups</i></li> </ul>	<ul style="list-style-type: none"> <li>• Inventory incubators and specific expertise</li> <li>• Inventory programs and courses offered</li> <li>• Conduct needs assessment for entrepreneurs resident in incubators to identify gaps</li> <li>• Baseline impact (current) and goal setting</li> <li>• Incubator Manager Training (business and operational aspects of incubator management)</li> <li>• Add/create curriculum and programs to narrow identified gap(s) to meet needs</li> <li>• Deliver training for incubator staff that they can in turn manage and deliver to entrepreneurs on an ongoing basis</li> <li>• Access to regional network and national platform</li> </ul>
<b>MDA Entrepreneurship Center, Biloxi Innovation Center, CAVs, Ole Miss, SBDCs</b>	<i>Focus on Harvesting Intangible Assets as a growth and diversification strategy.</i>	<ul style="list-style-type: none"> <li>• Workshops</li> </ul>