Searching for **Support**
for SBIR and Business Success

Resources within your reach that you can access
Best practices readily replicated in your own state

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National SBIR Conference - May 16, 2013

TechLink is an Authorized
U.S. Department of Defense
Partnership Intermediary per
Authority 15 U.S.C. 3715

“Secret” Resources for SBIR:

- **Universities** (Research Collaborations)
- **Federal Labs** (Federal Laboratory Consortium)
- **TechLink** (DoD Partnership Intermediary)
- **Regional Innovation/Industry Clusters**
- **Manufacturing Extension Partnership**
- **Prime Contractors**

* Involved directly with
** Here representing
University Research Partnerships:

“The single most significant correlator in winning Phase I SBIR awards has been the participation of a university scientist on the proposal team.”

- According to an informal SBA study, per David Metzger
- Also noted by top SBIR experts and Program Managers

- Recognized scientific expertise adds credibility
- University labs are significant sources of innovation
- University laboratory research facilities may be needed
- University scientists have lots of technical proposal experience
  - Don’t let them take lead in writing full proposal!!

Business & University Partnering May Sometimes be Difficult:

- University faculty too busy to partner
  - Phase I subcontract too small to bother
  - Perceived odds of winning too low
  - Why go to so much effort in proposal preparation for someone they don’t know?

- Companies reluctant to work with faculty
  - University research not business-oriented
  - Poor perception of academic priorities, timeliness
  - Why dedicate significant subcontract for someone they don’t know?

Best Practice: Small “Incentive Grants” (from state or university program) can overcome perceptual barriers!
Partnering with Federal Labs:

**Inventions available to license:** PLA - Patent License Agreement

**Research collaboration:** CRADA - Cooperative R&D Agreement

**Special Testing:** TSA - Test Service Agreement

**Other:** Work For Others, Material Transfer Agreements, etc.

FLC can help! ([http://www.federallabs.org](http://www.federallabs.org))

(Federal Laboratory Consortium for Technology Transfer)

Available Technologies Search Tool
Federal Lab capabilities search
FLC Technology Locator

Also see [http://www.zyn.com/](http://www.zyn.com/) for Far West & Mid-Continent regions

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**Partnering with Federal Labs:**

**Advantages of a CRADA** (Cooperative R&D Agreement):

- Tie into significant R&D capability at little or no cost
- Utilize specific R&D capability available nowhere else
- Increase your perceived credibility based on partnership
- Become familiar with Agency (customer) needs, culture
- Agency personnel become familiar with your capabilities for potential advantages
- Often opens doors for other funding opportunities
  - SBIR/STTR plus the OTHER 96% - tremendous long-term value!

*Note: federal law prohibits payment to company under a CRADA, while companies may pay lab for services, which may now be allowed as an SBIR/STTR subcontract.*

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One Client’s Perspective:

“Especially, I would like to thank Ray for his suggestion to put in place a CRADA with DMEA. Daniel ** from DMEA was well connected with the Air Force decision makers and gave [us] very valuable guidance that helped us focus our efforts on what the Air Force wanted to see. I believe this relationship played an important role in our [Air Force SBIR Phase II] win.”

- TechLink client company with ~40 SBIR/STTR awards, 4/5/13

Primary Defense-wide Partnership Intermediary for technology transfer & transition

- Facilitates ~60% of all DoD Patent License Agreements (PLAs)
- Assists DoD CRADAs, TSAs, etc. (regionally, or synergistically)
- Over 1200 technology partnerships (>850 DoD partnerships)
  - $2.935 Billion total ($1.033 Billion direct); 17,818 jobs

Nationwide DoD SBIR support

- Phase II, Phase III & Transition for selected client companies
- Additional SBIR support (any agency) for Montana companies & start-ups, and members of the Advanced Power & Energy Cluster (APC)
Transition: Critical Focus for DoD SBIR

Goal is to convince the customer (DoD reviewers) that you have a clearly defined pathway to their end-product:

- Credible R&D Capability
- Strategic Partnerships
- Alliances with appropriate Primes
- Thorough familiarity with customer's need and product use

Regional Innovation Clusters:
SBA Supports 56 Federally Funded Cluster Initiatives
http://www.sba.gov/sba-clusters
Regional Innovation Clusters:

Advantages of an Industry Cluster for SBIR/STTR:

• Build your perceived capability/credibility through collaborations with suppliers, researchers, SMEs, Primes
• Take advantage of subcontract allowances (1/3 in Phase I, ½ in larger Phase II, up to 60% in STTR) to build team
• Network with Cluster members to find someone with existing relationship with or knowledge of customer
• Cluster Partners/Administrators may be able to provide specific SBIR assistance and expertise
  • Cluster performance evaluated on jobs created, contracts won

Advanced Power & Energy Cluster:

APC (under Defense Alliance): 1 of 3 Advanced Defense Technology (ADT) Regional Innovation Clusters (RICs) sponsored by SBA

• Membership open to any company in U.S. developing technologies related to power or energy with Defense applications
• HQ in St. Paul, MN, but only "virtual" RIC, now with 125 members
• Since 2010 start, helped members gain >$40M new revenue
• TechLink is Partner and DoD Liaison, providing DoD partnering and SBIR assistance (any agency/phase) to members

http://www.powerfordefense.com/
**Manufacturing Extension Partnerships**

Nationwide network of ~1,300 manufacturing technical experts, field engineers sponsored (partially supported) by NIST to provide assistance to small manufacturers.

Initial evaluations usually free, services at low cost

Provide outstanding value for design, manufacture, cost reductions, quality control, ISO certification, etc.

Working with your local MEP can help with SBIR

- For future production, letter of support from MEP for Phase I proposal demonstrates commitment to future production
- MEP can also be Phase II subcontractor for mfg, production, outsourcing, quality control to work with Primes, etc.

**Partnering with Primes:**

- Prime Contractors (Boeing, Raytheon, Lockheed, etc.) often seek out SBIR companies for partnering.
- SBIR subcontract not significant to Prime, but consider future system enhancements, contract opportunities.
- For SBIR company, tremendous future business opportunities for subcontracting, even business acquisition.
- Caveat: Get professional advice on IP, SBIR Data Rights (“7018 Clause”), before signing any agreements.

DoD Perspective:
Partnering with Primes shows intent to transition technology, and capability to do so.

Boeing SBIR/STTR PM
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Sbir.Fc-LMC@lmco.com
orysia.d.buchan@lmco.com
**Key to Long-Term Success:**

- **Network, Collaborate, Partner!**
  - Work with university researchers wherever possible
  - Biggest single factor in winning Phase I SBIR
  - Partner with fed. labs, esp. if agency is target customer
  - Cooperative R&D Agreements (CRADAs), Test Service Agreements may be paid for with SBIR/STTR funds
  - Work with Prime Contractors where relevant
  - Can be subcontractor on SBIR/STTR
  - Other partners for design, mfg., dist., service, etc.
  - Work with customers (agencies) to create new opportunities
  - *The most successful firms are best at partnering!*

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**Client Example: Visual Learning Systems, Inc.**

**Transition Success:** Feature Analyst™ Software

**Technology:** Software for automated feature extraction in hyperspectral or panchromatic images. Learning algorithms are orders of magnitude faster than manual digitizing, also easy to train.

- Developed under multiple SBIRs:
  - 3 NASA SBIR awards, 3 NSF
  - Army TEC Ph. I & II, NAVAIR Ph. I & II
- CRADAs & Partnerships with Gov’t:
  - Army TEC & NUWC CRADAs
  - NASA TCA
  - NIMA & NRO partnerships
- Partnered with Primes:
  - ESRI, Leica, BAE, Intergraph

*Chosen by NGA for deployment across all NGA’s Integrated Exploitation Capability (IEC) workstations – Now Dual-Use (Commercial & Military) Success!*
Timeline: Feature Analyst Transition

  - NASA Stennis Phase I
  - TCA with NASA JPL

- 1999: NASA JPL Phase I
  - NRO Fastmax

- 2000: NIMA "Big Ideas"
  - NUWC CRADA

- 2001: Army TEC CRADA
  - NSR Phase II

- 2002: Army TEC Phase I award
  - Army TEC Phase II award

- 2003: NAVAIR Phase I award
  - NAVAIR Phase II award

- 2004: Army TEC Phase II award

- 2005: Army TEC Phase II award

New Company: Visual Learning Systems

Company: Integrated Geosciences

Scientific Materials

- SMC focused on adv. laser crystal growth
  - Developed via 30 SBIR/STTR awards ’89 – ’04
  - Very close university (MSU) collaboration

- SMC participant in $1M ManTech project
  - SMC cost share $566K in 2000 – 2001 project
  - Monoblock laser enabled by adv. laser xtals

- TechLink assisted license application
  - Submitted April 2001, signed April 2003

- MilTech (MEP) aided design, production
  - Shock-resistant adhesive bonding
  - Manufacturing/production scale-up

- SMC sold to FLIR Systems (2005) for $13M
  - Purchased solely for monoblock capabilities
  - Over 7,000 units produced, 60 empl. locally
  - Primary application is STORM (2-6 km range)
  - Larger unit in FLIR Star SAFIRE III (25 km range) - >500 units sold
**Fielded Applications:**

- FLIR Systems AN/AAQ-22 Star SAFIRE III
- MQ-8B Fire Scout
- AN/PSQ-23 STORM-mLRF (Small Tactical Optical Rifle Mounted Micro-Laser Range Finder)
- UH-60 Blackhawk
- MQ-1 Predator
- Aerostat and Tower Ground Surveillance
- Common Remotely Operated Weapon Station (CROWS) II
- Stryker Remote Weapon Station
- MQ-1 Predator

**STORM-mLRF Contract**

- **June 2011:** 5-yr IDIQ contracts issued for AN/PSQ-23 STORM-mLRF
  - DRS Technologies Reconnaissance, Surveillance and Target Acquisition (RSTA) Group: up to $514.3 million for 150 – 32,000 STORM-mLRF units
  - L-3 Warrior Systems Division (Insight Tech): up to $438.8 million for 150 – 32,000 units
- STORM used on M16/M4 light weapons, M240/M249 machine guns, M107/M110 sniper rifles, Stryker vehicle, light artillery, CROWS II, etc.
- SMC is **only** manufacturer of Monoblock Laser used in STORM-mLRF