

Partnering with the NETL- RUA, Federal Laboratories and Universities



2nd Annual Energy and Innovation Conference

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We are a national research and analytics firm specializing in technology transfer and market analysis for intellectual assets.



Selected Projects



UPMC



Outcomes

- **1000'** s of **technologies reviewed** every year
- Over **250** Technology Transfer **agreements** executed
- Contributed to projects resulting in over **\$9.2 million returned** to the federal government
- Identified **\$7 million in funding**



Securing Our Nation



DoD



DHS



DOE



DOJ

**Intelligence
Community**



Threats

Large Traditional Nations

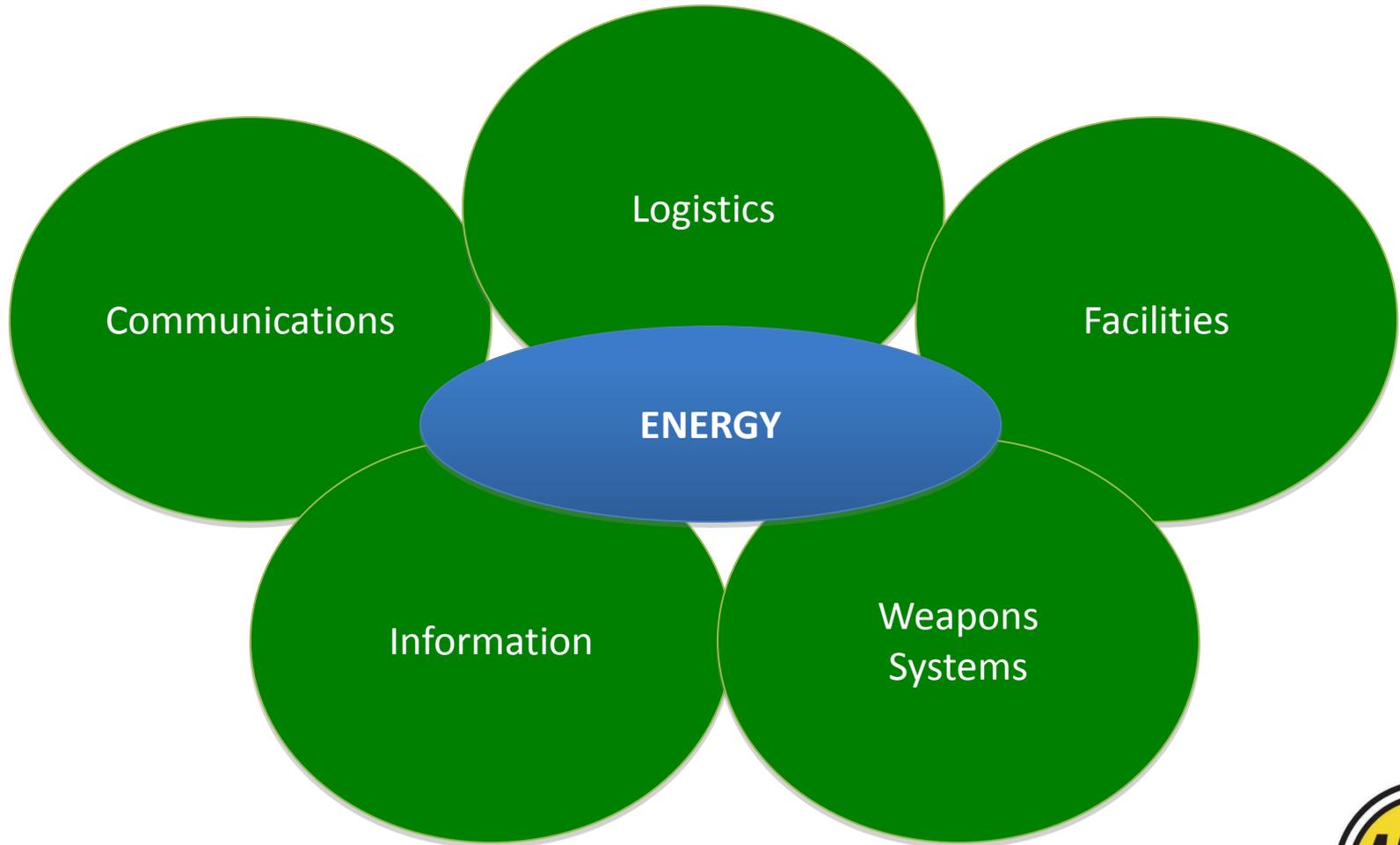
Terrorist Organizations

Rogue Nations

Traditional Crime



Focus Areas



Federal R&D Investment

- **Nationwide**

- Over \$30 billion to federal agencies and laboratories
- Largest agencies: DoD, DOE and HHS

- **Pennsylvania**

- \$3.4 billion
- Largest agencies: HHS and DoD

- **Ohio**

- \$3.7 billion
- Largest agencies: DoD and HHS

- **West Virginia**

- \$220 million
- Largest agencies: DOE, HHS and DoD



DoD Energy Initiatives

- **FY13 budgeted ~\$1.5B for Operational Energy programs**
- **Key areas of research:**
 - **Alternative fuels—to accelerate and enhance test and certification process for alternative fuels**
 - **Enhancing the energy efficiency of legacy and future systems**
 - **Hybrid technology**



Army Energy Initiatives

- **FY13 budgeted ~\$562M for operational energy initiatives**
- **64% for Science & Technology (S&T) efforts, including:**
 - **Advanced Mobile Medium Power Sources (AMMPS) program—to improve the efficiency of generators in the field and reduce the amount of fuel needed to power them**
 - **Increase Energy Efficiency Across Platforms and Facilities—ground vehicle power and mobility integration, and rotorcraft propulsion and drives**
 - **Increase Use of Renewable/Alternative Energy—alternative energy technologies, hybrid intelligent power, and dismounted soldier efforts**
- **Tactical Garbage to Energy Refinery**
 - **Hybrid technology converting broad spectrum of waste into usable power source**



Navy Energy Initiatives

- **FY13 budgeted ~\$402M for operational energy initiatives**
- **60% for Science & Technology (S&T) efforts, including:**
 - **Incentivized Energy Conservation (i-ENCON)—to immediately reduce operational energy intensity**
 - **Increase Alternatives Afloat—alternative fuels and Hybrid Electric Drive R&D for DDG51 class ships (destroyers)**
 - **Increase Efficiency Afloat—to monitor and measure S&T, procurement, and operation maintenance funding for legacy vessel upgrades**



Air Force Energy Initiatives

- **FY13 budgeted ~\$573M for operational energy initiatives**
- **60% for Science & Technology (S&T) efforts, including:**
 - **Reduction in operational energy demands through procedural changes in the operations of large airlift aircraft**
 - **Create energy efficiencies in legacy and future systems**
 - **Certification of aircraft, vehicles, and fuel delivery systems to use alternative fuel blends**



Working with Federal Labs

- **Federal Laboratory Consortium (FLC)—www.federallabs.org**
 - Nationwide network of approximately 300 federal labs and centers
 - Can search for capabilities at labs via their Web site
 - National and Regional meetings serve as networking opportunities



Working with Federal Labs

- **Office of Research and Technology Applications (ORTA)**

- Office at each lab that is responsible for transferring technology out of that lab

- Primary Point of Contact (POC) for T2

- Federal Policy in 15 USC 3710:

- Technology transfer . . . is a **responsibility** of each lab S&E professional.

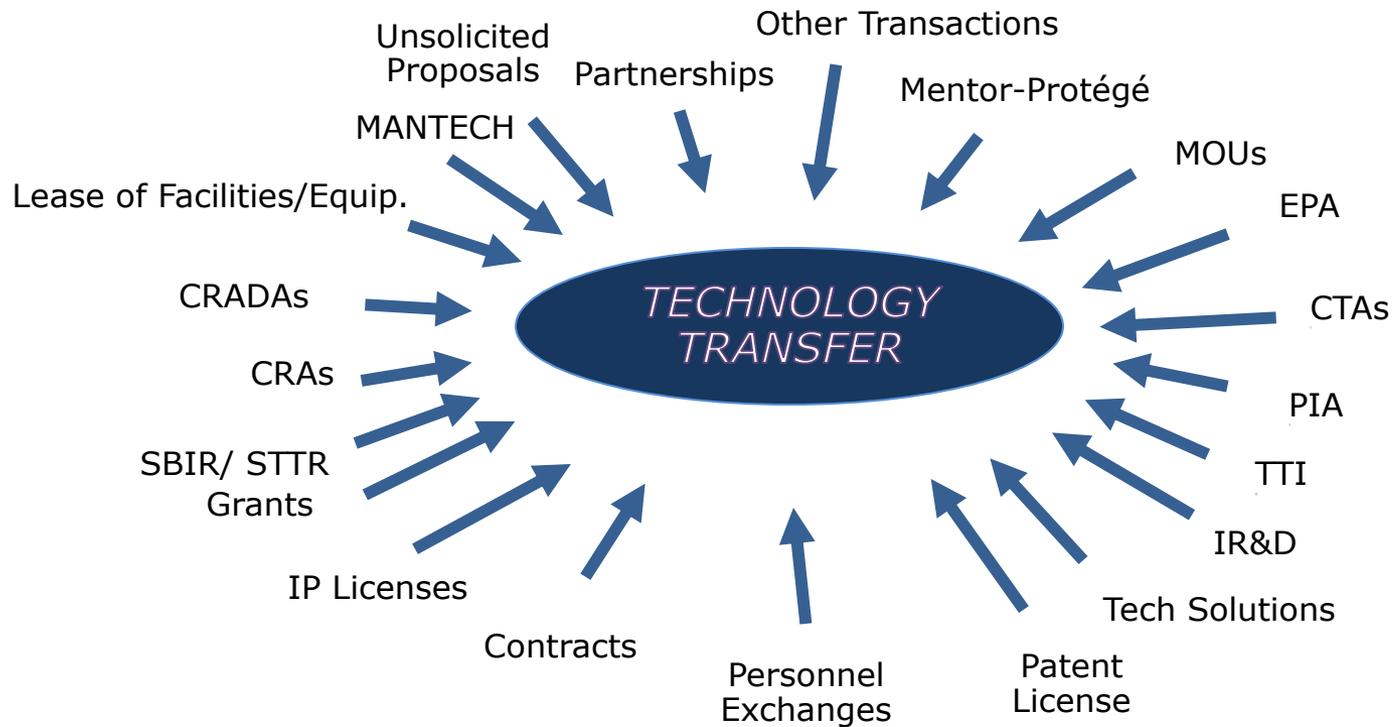
- Establishment of Research and Technology Applications Offices (ORTAs)

- **Each Federal laboratory shall establish an ORTA**



Technology Transfer Mechanisms

T2 mechanisms support a foundation of T2 best practices



Rigid Rod/PBO Material

- **New material having anti-ballistic and fire retardant capabilities with a favorable strength-to-weight ratio**
- **Invented by Air Force Research Laboratory (AFRL) and University of Dayton Research Institute (UDRI)**
- **Performed market analysis and facilitated a Patent License Agreement (PLA) to Xerion Materials**
- **Inventor went to work for the company, while maintaining engagement with AFRL and UDRI**



SonicEye®

- **A finger-mounted ultrasound probe with smart phone compatibility allowing for far forward diagnosis**
- **Developed by Blacktoe Medical with funding from the U.S. Army Telemedicine and Advanced Technology Research Center (TATRC)**
- **Performed market analysis and facilitated a Clinical Trial CRADA with the U.S. Naval Health Research Center (NHRC) to test the efficacy and safety of the device**



ARMOR PROTECT

- A novel software program that randomized schedules, plans, or actions of security groups
- Developed by the University of Southern California's Center of Excellence for Risk and Economic Analysis of Terrorism Events (CREATE) and funded by the Department of Homeland Security (DHS)
- Crafted a business plan for commercialization and found that the expertise used in characterizing different domains is as important as the actual algorithm
- Consulting will be a key piece of the support for its commercialization



Summary

- **Federal laboratories can be an R&D partner for you.**
- **The FLC and ORTAs can serve as entry-points.**
- **There are a variety of mechanisms through which to engage.**





Thank You!





Resources

www.federallabs.org

<http://www.nsf.gov/statistics/seind12/pdf/c04.pdf>

