

# ***Cooperative Biological Engagement Program***

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# Agency Mission

The Defense Threat Reduction Agency enables DoD and the U.S. Government to prepare for and combat weapons of mass destruction and improvised threats and to ensure nuclear deterrence



# Countering Weapons of Mass Destruction and Improvised Threats

DTRA addresses high consequence, highly uncertain risks to the achievement of U.S. national objectives

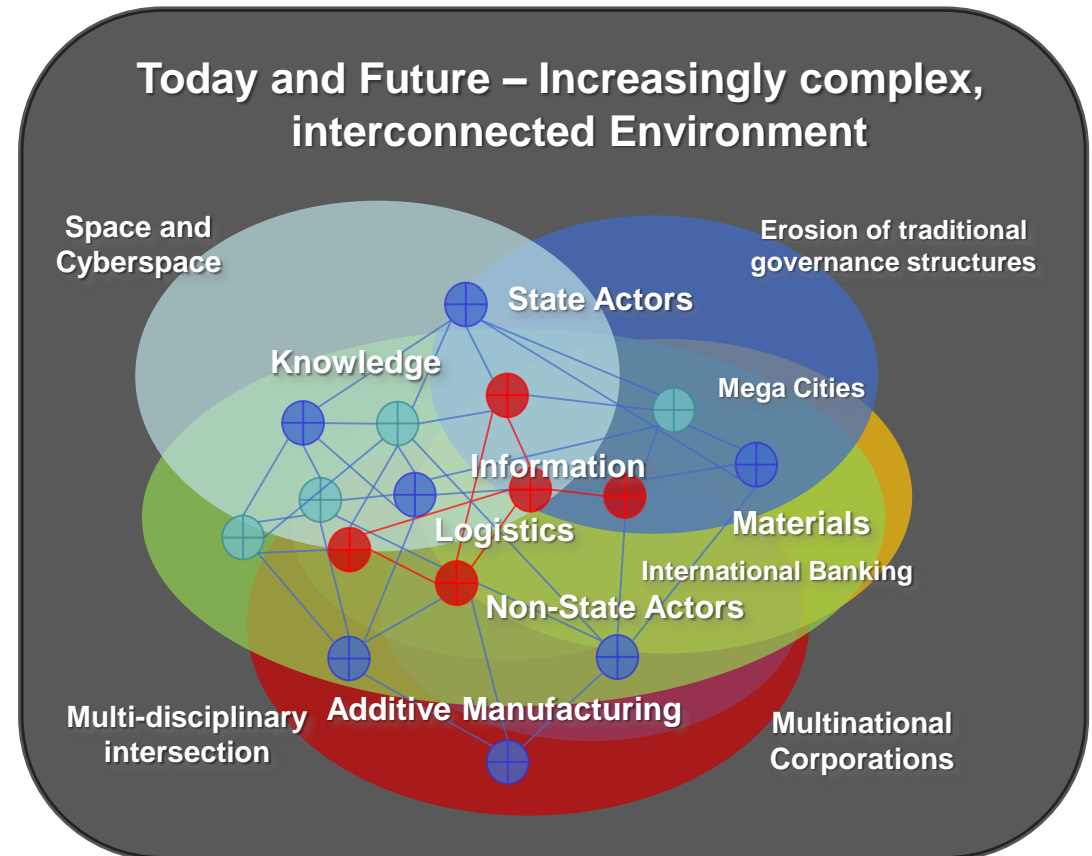
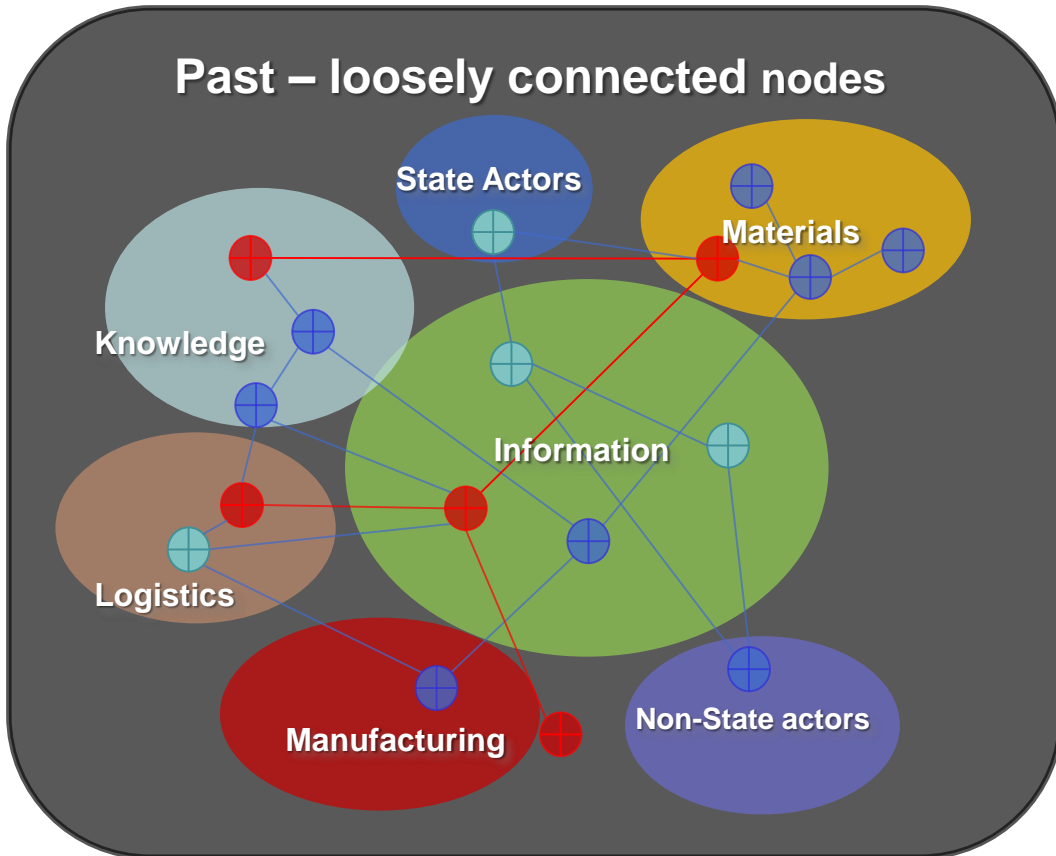
WMD and improvised threats are unique due to their potentially non-linear, asymmetric effect

These threats develop as the result of the convergence at critical nodes across a complex network





# Increasingly complex threat space



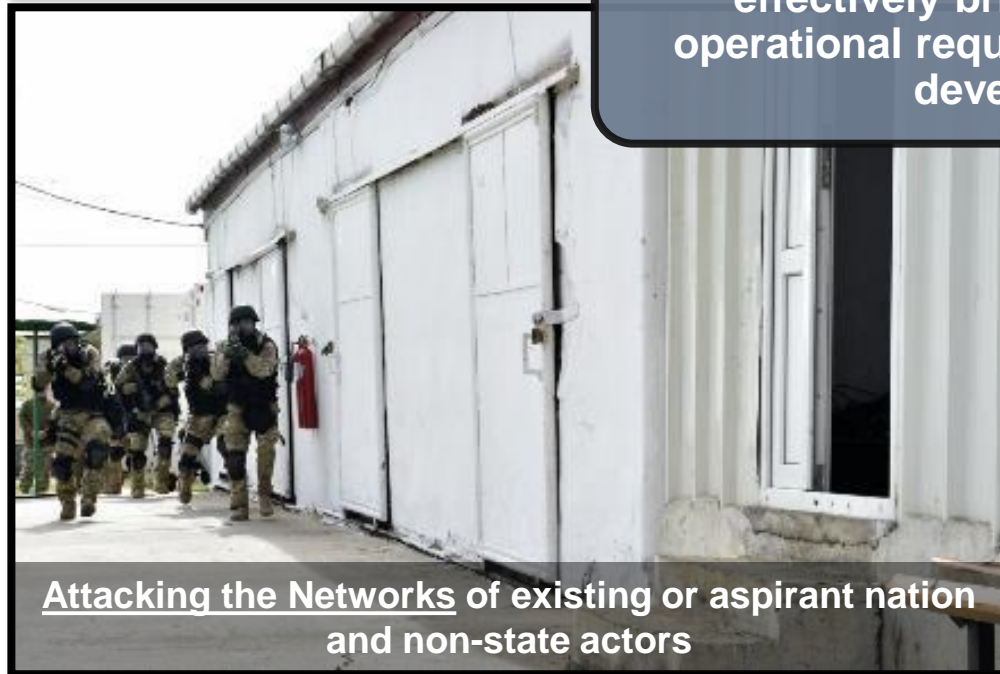
***The result is increased risk to our national objectives and need for agile and adaptive solutions***



# Strategic Imperatives

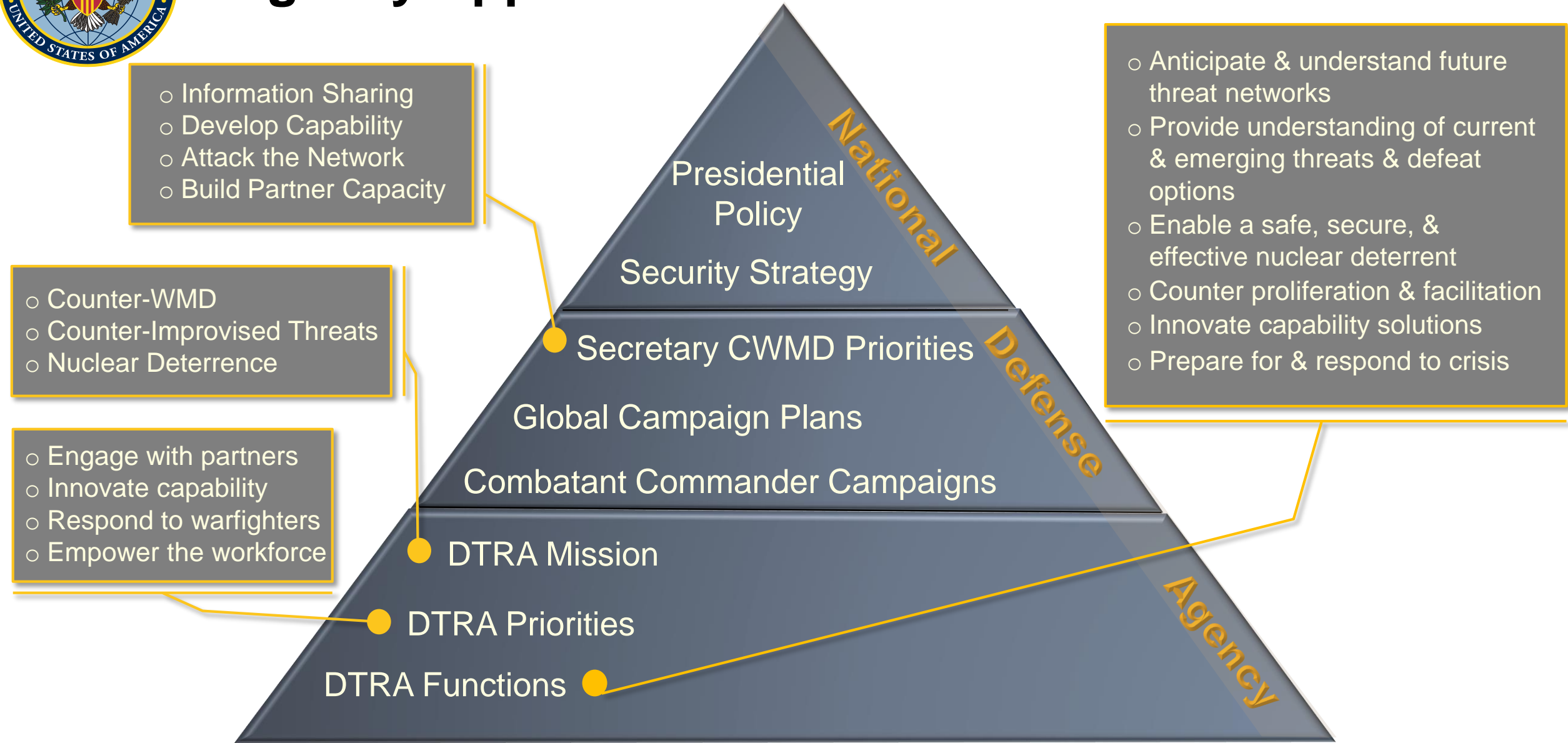


Revamp Agency processes to more effectively bridge the gap from operational requirements to solution development





# Agency Approach





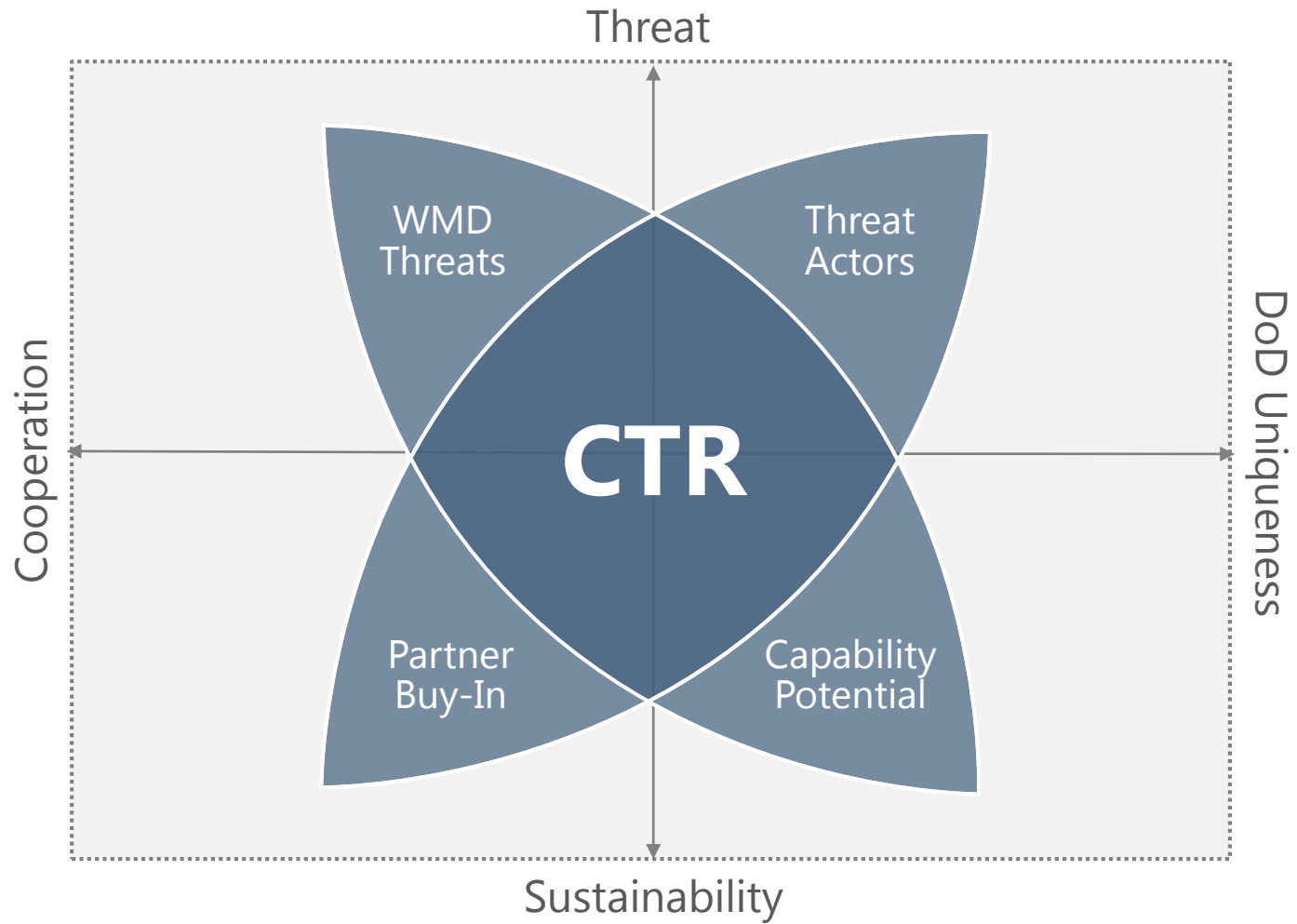
# Cooperative Threat Reduction (CTR) Mission and Objectives

The Department of Defense (DoD) CTR Program cooperates with partner governments to reduce the threat to the United States as well as its partners and allies from weapons of mass destruction (WMD) and related materials, technologies, and expertise including associated delivery systems and infrastructure.

- **Reverse WMD programs** by dismantling and destroying stockpiles of nuclear, chemical, or biological weapons, equipment, or means of delivery that partner countries own, possess, or that is in their control
- **Account for, secure, and safeguard** nuclear, chemical, and biological materials, equipment, or expertise which, if vulnerable to theft or diversion, could result in WMD threats
- **Prevent and detect acquisition, proliferation, and use of** nuclear, chemical, or biological weapons, equipment, or means of delivery and knowledge



# CTR Mission Space







# CTR Program Areas

- Proliferation Prevention Program (PPP)
- Global Nuclear Security (GNS)
- Chemical Weapons Destruction (CWD)
- Strategic Offensive Arms Elimination (SOAE)
- Cooperative Biological Engagement Program (CBEP)

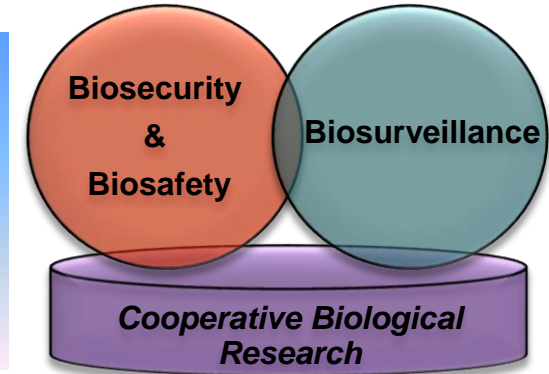


# CBEP Focus Areas



## **BIOSAFETY AND BIOSECURITY (BS&S)**

Enhance BS&S procedures and practices and secure collections of especially dangerous pathogens (EDP) into a minimal number of safe and secure facilities. Provide technical consultations, risk assessments, and training courses to build human capacity and internal expertise, creating a sustainable culture of safe biorisk management practices.



## **BIOSURVEILLANCE (BSV)**

Strengthen the capacity for public and veterinary health systems to detect, diagnose, and report infectious disease outbreaks in accordance with the World Health Organization's (WHO) International Health Regulations (IHR), the World Organization for Animal Health's (OIE), and the United Nation's Food and Agricultural Organization's (FAO) reporting guidelines.



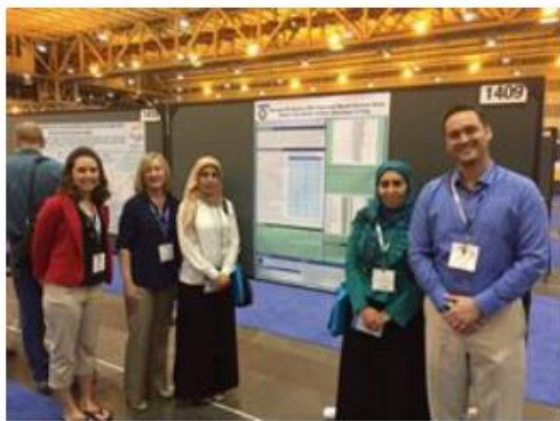
## **RESEARCH (Technical Engagement)**

Enhance global health security and foster safe, secure, and sustainable bioscience capacity through joint scientific collaborations designed to help prevent, detect, and respond to biological threats. Research is focused on understanding and reducing the biorisk posed by EDPs.



# Engage the Scientist (Cooperative Research)

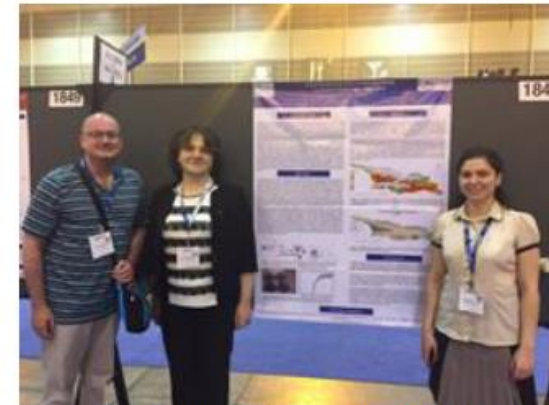
- Inform and enhance disease surveillance
- Improve understanding and capacity to reduce biological threats
- Promote the One Health initiative (i.e., Human and Animal)
- Foster an international culture of responsible and ethical conduct in biological research
- Ensure research results are published in peer reviewed journals



Iraqi research CRDF Fellows with CBEP and CRDF representative.



Iraqi, Ukrainian, and Georgian researchers discuss collaborations and their work on Brucellosis at ASM.



CBEP EUCOM Science Lead with the Armenia and Georgia delegations.



# CBEP Historical Projects

- Dismantled biological weapons production facilities in Kazakhstan, Georgia, Russia, and Uzbekistan
- Established 52 labs and research centers throughout the FSU
- Consolidated and secured dangerous pathogens at risk for theft, diversion, accidental release, or terrorist use
- Electronic Integrated Disease Surveillance System
  - 1700 sites in 7 countries
  - Built or upgraded 36 safe/secure laboratories
- Ebola Virus Detection in Guinea
  - Trained technicians to staff a transportable laboratory
- Organized and led 400 training events in key biological engagement and laboratory disciplines annually



*Laboratory Construction*



*Biosafety & Biosecurity*



*Cooperative Biological Research*



# CBEP Current Projects

- United States European Command (EUCOM)
  - Laboratory Transitions: Armenia, Azerbaijan, Georgia
  - African Swine Fever (ASF) Outbreak Support: Ukraine
- United States Central Command (CENTCOM)
  - Laboratory Transitions: Kazakhstan
  - Research, training, and certification projects: Jordan, Iraq, Turkey
- United States Pacific Command (PACOM)
  - Research Networks: Philippines, Thailand
  - Begin laboratory construction: Philippines
  - Laboratory transitions: Cambodia
- United States Africa Command (AFRICOM)
  - Laboratory transition and sustainment: Guinea, Sierra Leone
  - Laboratory construction/renovations: Kenya, Senegal
  - Laboratory design: Liberia, Ethiopia



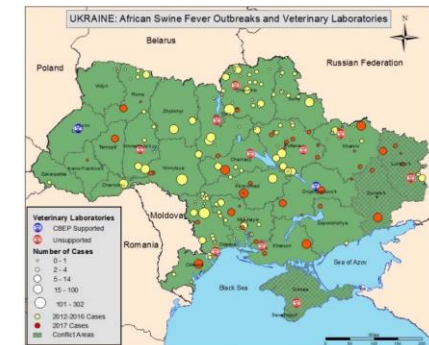
*Sierra Leone  
Official Transfer*



*Bat Guano Collections,  
Thailand*



*Kazakhstan  
Construction*



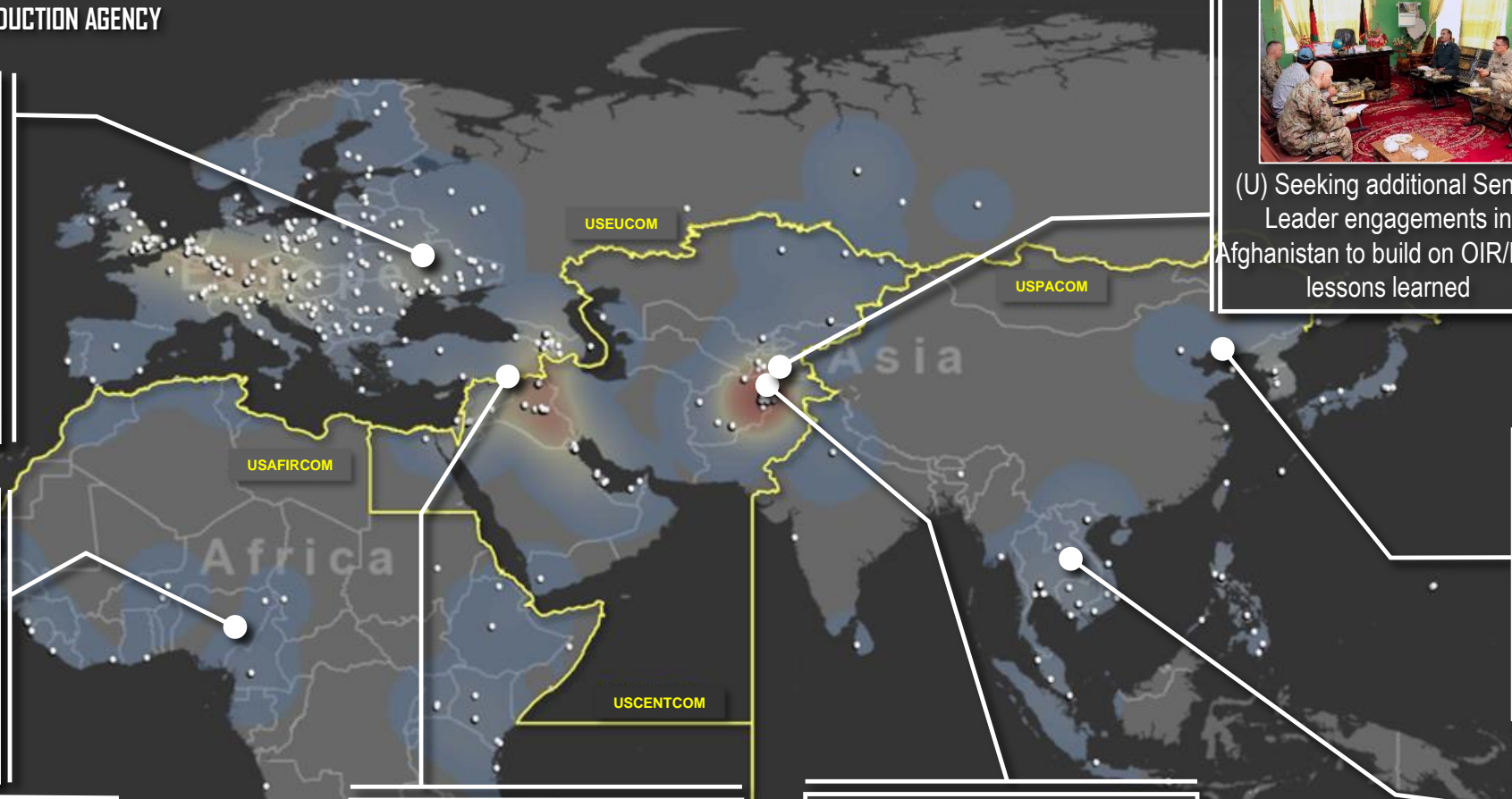
*ASF  
Outbreaks*

# DTRA GLOBAL REACH

DEFENSE THREAT REDUCTION AGENCY

## Over 2,500 Global Engagements

2943 Site Locations | 2637 Missions | 110 Countries | 48 US States



(U) Dismantling FSU WMD infrastructure, preventing WMD smuggling, and building WMD response capacity



(U) Seeking additional Senior Leader engagements in Afghanistan to build on OIR/RSM lessons learned



(U) Reducing biological threats in sub-Saharan Africa



(U) USFK/CFC WMD OPS Exercise Support



(U) Development in technology, tools and equipment advances DTRA in the IED fight



(U) Targeting and technical reach-back for OIR/RSM, and border security cooperation in Jordan



(U) Counter-Improvised Threat rapid acquisition and embedded "Counter Threat Networks" support



(U) Building CBRN defense and response capacity in Southeast Asia



# CBRN Military Advisory Teams (CMAT)

- DTRA deployable element providing advice and assistance for WMD/CBRN incidents, specializing in mitigation, response, and recovery efforts
- Team capabilities:
  - CBRN technical expertise
  - Consequence Management doctrinal/policy expertise
  - Crisis Action planning
  - Hazard effects analysis
  - Basic detection, ID, and decontamination capability
  - Facilitate Reachback via DTRA Operations Center/IMAAC



## Examples

**Operation TOMODACHI:** 23 pax, 24-hr CMAT support for USJSF-J for 45 days

**CENTCOM Support:** Deployed CMAT in support of CENTCOM Forward (Feb '13)

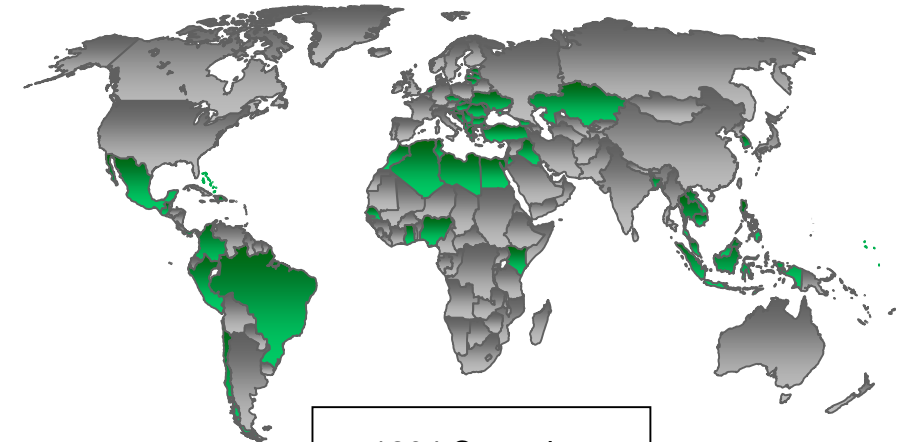
**CMAT Support to Operation United Assistance:** Deployed CMAT in support of AFRICOM's Ebola Response (Oct 14 -Jan '15)

**Operational & Exercise Support:** Exercises and National Special Security Events (NSSEs)



# CBRN Preparedness Program (CP2)

- Develop CBRN preparedness and response capabilities
- Training and equipping
- Military and Civilian Responders







# The Experience To Do More



**2011 Operation Tomodachi**



**2011-2014 Syria**



**2014-2015 Ebola**



**2012-2014 Libya**



**The next WMD challenge?**



**DTRA adapts to respond to a complex threat environment at the speed of relevancy**