



INNOVATION
THROUGH
COLLABORATION

OTAs AND THE NAC - PROVIDING RAPID INNOVATION AND PROTOTYPING

15 OCTOBER 2020



ARMAMENTS AS DEFINED BY NAC

“Armaments” is the ordnance, ammunition, munitions, weapon and sensor systems, and related military materiel, equipment, and components that enable the military to achieve combat and mission effectiveness in all warfare environments: air, land, sea, undersea and space.

...Everything in the “Kill Chain”



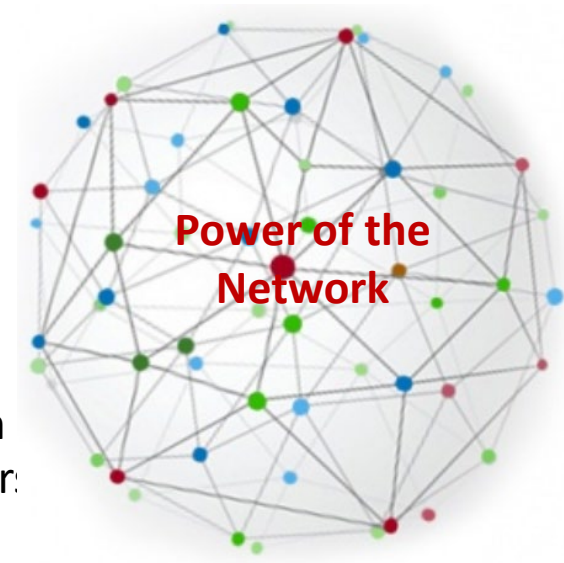
NATIONAL ARMAMENTS CONSORTIUM

Our Focus:

- Transition technology to the Warfighter fast
- Promote innovation
- Recruit a community of world-class technologists
- Collaboration between government, industry, and academia
- Remove barriers
- Promote nontraditional defense contractor contributions and participation
- Promote and enable the MIB
- Support the Nation's equities in RD&A, OTA, and future capabilities

We value:

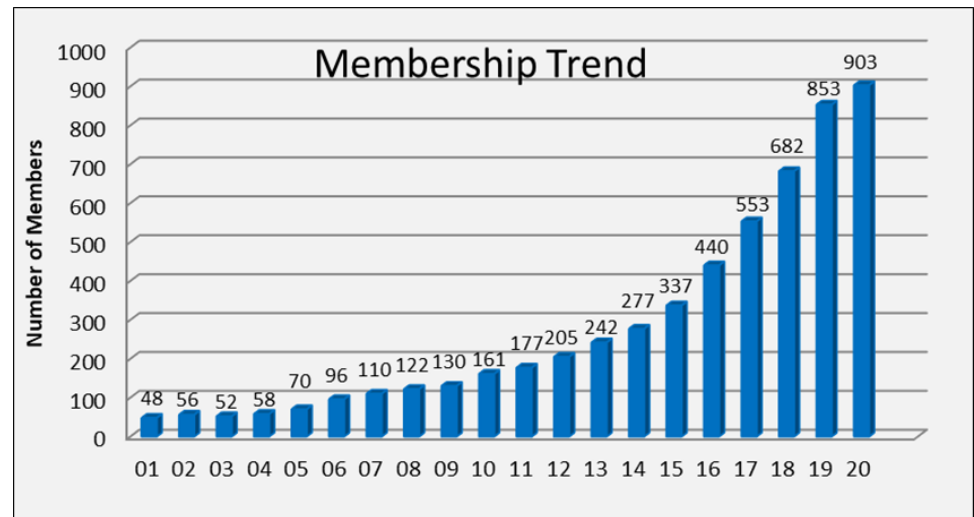
- Collaboration and teamwork
- Innovation, creativity, agility
- Transparency and accountability
- Stewardship of precious resources
- Responsiveness, relevance, and timeliness
- Excellence in leadership and management
- Courage to act boldly, responsibly, and with vision
- Duty and service to the Nation and our Warfighter:





NATIONAL ARMAMENTS CONSORTIUM

- What We Do: Form industry **partnerships** to collaborate with Government **customers** to **innovate** technology/ engineering **solutions** and rapidly **deliver combat capabilities** for the Nation's Warriors
- Network:
 - 952 (T-158, NT-794)
 - Large - 205
 - Small – 695
 - Academic - 33
 - Not for Profit - 19
 - ~3,500 active NAC participants
- Since 2009:
 - Completed 884 Prototype Projects
 - 495 Active Prototype Projects





NAC GOVERNANCE AND MANAGEMENT

- NAC is governed by an 11-member board of trustees (Executive Committee)
 - 5 large companies, 5 small companies, 1 University
 - Executive Director and Director of Customer Affairs are ex officio members
 - Seats on board are elected every 3 years
 - No compensation for board members
 - Meets in person four times a year and monthly telecoms
 - Governs to Strategic Plan, SOPs, and CMA
- ExCom Subcommittees ensure compliance
 - Governance and nominating committee (includes ethics)
 - Finance committee
 - Strategic Communications committee
- ED and DCA lead execution
 - Statement of Objectives, labor, and travel agreed to annually
- Retains CMF (ATI) to manage day-to-day execution of OTAs

Chair of the NAC Executive Committee serves as Co-Chair of DOTC Executive Committee



NAC APPROACH WITH DOTC AND AMTC

Partnerships with government customers foster innovation and technology/engineering solutions

- **“Gold Standard” of Collaboration/Power of the Network to Innovate**
 - Link traditional and nontraditional contractors and government customers
 - Collaborate with DOD and Industrial Base during requirements generation, proposal stage and within joint working groups in specific technology areas
- **Streamline Development-to-Acquisition with Speed and Flexibility**
 - Process designed to minimize cost-to-compete and speed-to-deliver
 - Encourage cooperative and joint funded requirements, provide visibility across DoD Acquisition community
- **Onboard Nontraditionals and Remove Barriers to Innovation**
 - Provide training, education and mentoring for doing business with the government
 - Link nontraditionals with traditional defense contractors to develop technology, optimize for production and provide a "bridge" between capital and risk
 - Co-sponsor events to focus on technology/engineering/ programmatic threats, challenges, and opportunities.

Rapidly and Effectively delivers combat capabilities for our nation's warriors



COLLABORATION IS DISCIPLINED AND INTENTIONAL



We promote collaboration through a broad range of tools and virtual and in-person events and engagements.



Cyber training
ITAR/EAR
compliance

How to do business
with DOTC



General Membership
Meetings

Collaboration database
with member capabilities,
interest and gaps



Annual technology plan support

Business development training

Technology roadmapping



Proposer workshops



Periodic
project reviews

Data rights

Assessment
and feedback

Join Consortium

Evaluate Technology Gaps

Create Project Teams

Proposal Development

Project Execution



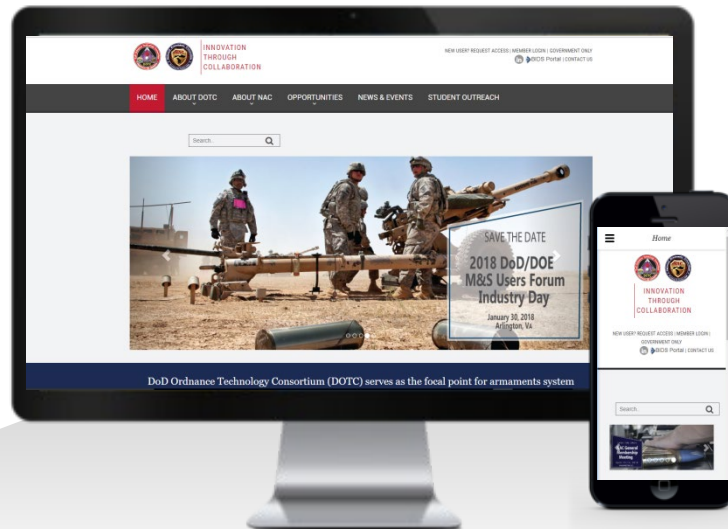
COLLABORATION PORTAL

DRAWS TO SITE

- Blast emails with links
- Social media notifications with links
- Promotion of site at conferences
- Search for opportunities
- News and Events

ATTRIBUTES OF SITE

- Search Engine Optimization
- Section 508 compliant
- Fully responsive to various devices
- Segmented into private and public sites



Event Announcements

Advertises conferences, General Membership Meetings, Industry Days, and other collaboration events



Collaboration Database

Where members learn about one another to form strong project teams.



Documents Library

Shares membership documents, project concept submission forms, white paper templates, and other documents.



RFP Announcements

Distributes solicitations and calls for project concept White Papers. Describes challenges and requirements.



Sisense Project Dashboard

Informs viewers of project awards and status, promotes transition of technology.



How to Join NAC

Potential members, particularly non-traditions, learn how to participate in NAC.



How to Work with DOTC/NAC

Promotes sustainment, introduces DOTC/NAC to potential new Government sponsors.



SINGLE POINT CONTRACTING HELPS OUR NONTRADITIONALS

Single Point Contracting is the use of a Consortium Management Firm to facilitate high volume transactions in the solicitation, award, and execution of Government contracted efforts

EFFICIENCY:

Improved process, better communications, and lower costs

SPEED:

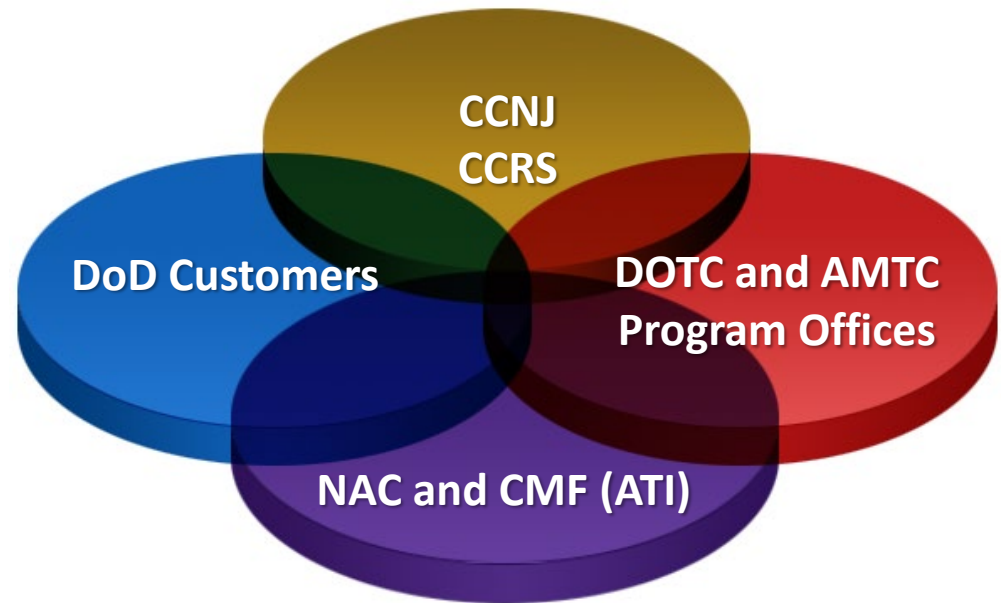
Faster transition of acquisition process and closer communication with technical community

CAPACITY:

Ability to execute thousands of transactions per year

FLEXIBILITY and EASE OF USE:

Ability to tailor resources to meet the requirements and guidance of the Government customer (e.g. surge, schedule adjustments, etc.)





SINGLE POINT CONTRACTING (SPC) MODEL

Government Funded (through Administrative Rate)

Single Point Contracting

- Solicitation Preparation/Webinars
- Submission Portals
- Whitepaper & Proposal – Receipt/Compliance Review
- Award Processing/Cost Analysis Support
- Project Administration/Close-out
- Milestone/Deliverable Tracking
- Invoice Receipt/Payment
- Technical and Financial Reporting
- Nontraditional Tracking/Reporting

Consortium Funded (through Member Dues/Assessments)

Consortium Management

- Consortium Leadership Support
- Member Training and Mentoring
- Collaboration Portal and Website
- Collaboration Events/Membership Meeting
- Member Application Processing
- Member Database (DD-2345, “good standing” tracking, etc.)
- Dues/Assessment Invoicing and Collection
- Program Status & Financial Reporting
- Conferences/Booth
- Other Support Services



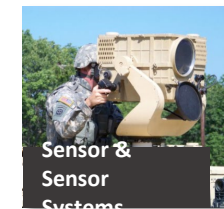
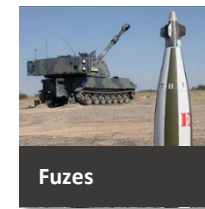
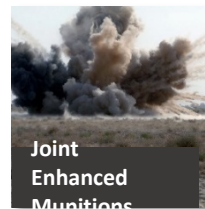
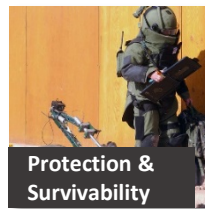
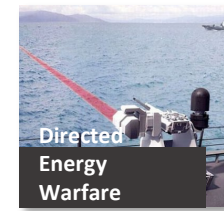
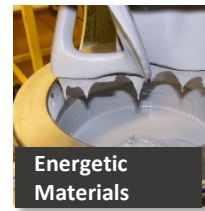
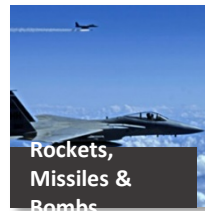
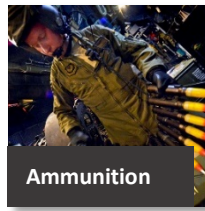
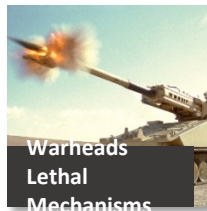
DOTC ENTERPRISE – MODEL FOR INNOVATION





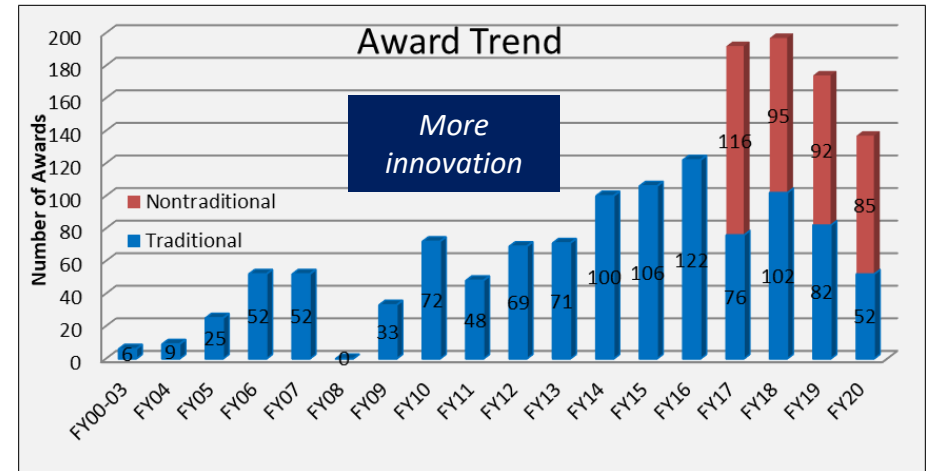
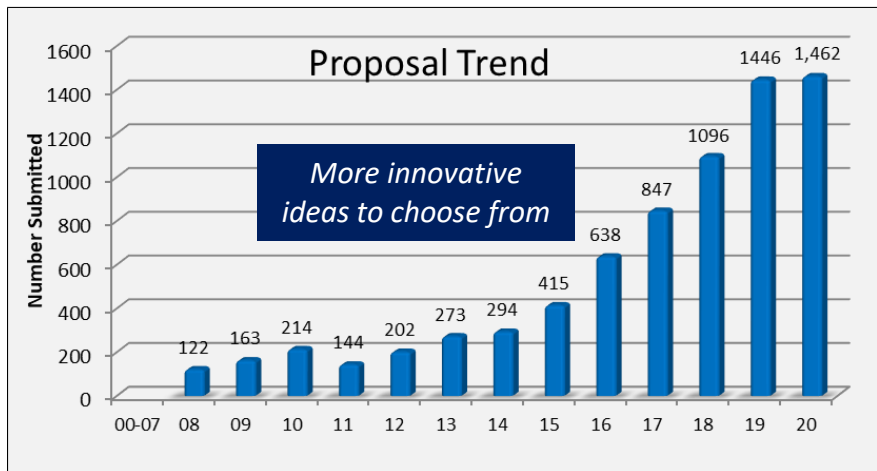
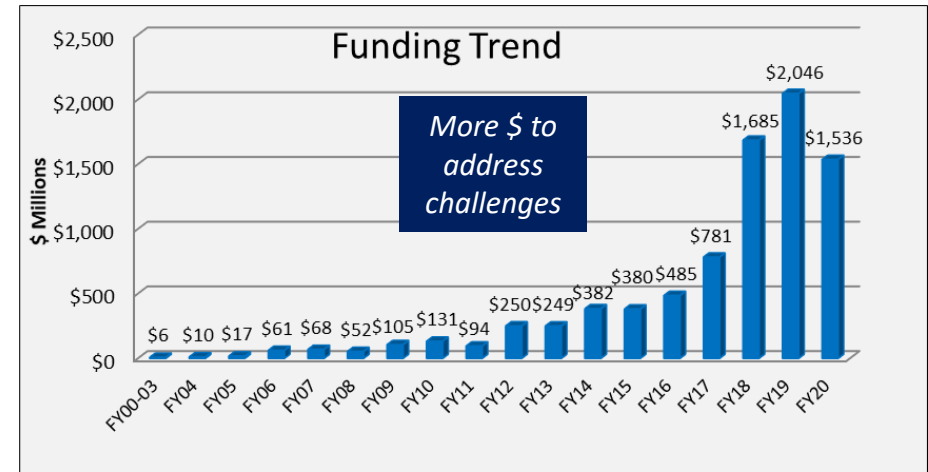
DOTC TECHNOLOGY OBJECTIVE AREAS

- Ammunition
- Demilitarization
- Directed Energy Warfare
- Enabling Technologies
- Energetic Materials
- Fuzes
- Hypersonics and Hypervelocity
- Information Operations, Cyber Operations and Electronic Warfare
- ISR, Sensors and Sensor Systems
- Joint Enhanced Munitions
- Manufacturing and Process Technology
- Multi-domain Battlespace Management
- Protection, Survivability, and Defense
- Rockets, Missiles and Bombs
- Warheads/Lethal Mechanisms
- Warrior as a System
- Weapon Systems





COLLABORATION DRIVES INNOVATION

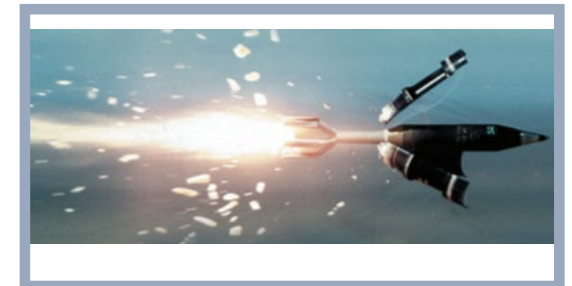


Uniting Academia, the Industrial Base, and DOD Developers can deliver significantly greater value to our Nation's Security



DOTC PROTOTYPES BEING DELIVERED

DOTC TECH OBJECTIVE	# OF INITS
Warheads/Lethal Mechanisms	34
Enabling Technology	150
Fuzes	59
Energetic Materials	54
Ammunition	73
Demilitarization	9
Joint Insensitive Munitions	4
Weapon Systems	107
Protection & Survivability	46
Sensors & Sensor Systems	20
Rockets, Missiles & Bombs	50
Directed Energy Warfare	10
Total Active Initiatives:	616



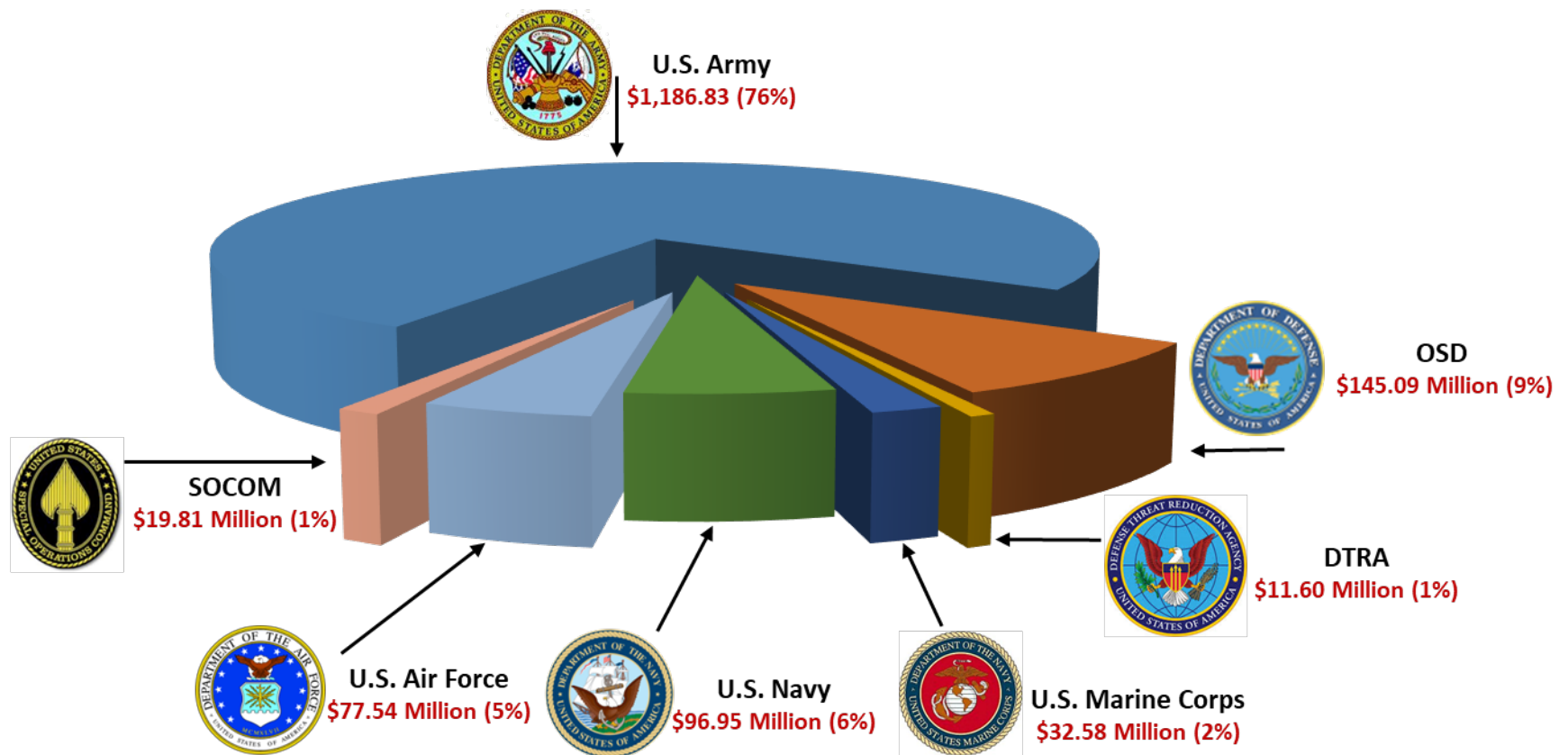
*54% of projects awarded directly to Nontraditionals;
99% of projects by Traditionals have Significant Participation by Nontraditionals*



DOTC PARTICIPATION BY SERVICE FY20

*\$1,570.42 Million Provided in **FY20** by the Services ...*

As of EOM September 2020





AMTC ENTERPRISE



102 Projects awarded at \$1.2B
62 of those to NDC



AMTC OTA SCOPE

GUIDED MISSILE	MANUFACTURING & ENABLING/ DISRUPTIVE TECHNOLOGIES	AVIATION
<ul style="list-style-type: none"> • Target Detection/ Acquisition/Tracking Sensors • Missile Electronics • Seekers to Defeat Moving Targets and Air Defense Threats • Guidance/Control for Improved Precision and Global Positioning System (GPS)-Denied Precisions • Lethality Mechanisms • Warheads • Fuzes • Payloads • Radar • Datalink and Communication • Materials and Structures • Power Systems • Aerodynamics • Navigation Systems • Modeling and Simulation • Energetics • Component Cyber Security • Propulsion Systems for Increased Range and Decisive Effects • Missile Launchers • Support Equipment 	<ul style="list-style-type: none"> • Innovation Enablers • Additive Manufacturing • High Energy Creation and Storage Systems • Directed Energy • Advanced Materials/Processes • Advanced Manufacturing Techniques • Manufacturing Cyber Security • Modeling and Simulation • Virtual Prototyping • Robotics • Automation • High Temperature Materials • Lightweight & Hybrid Materials • Flexible Electronics • Reclamation/Repair Technologies • Open System Architectures for Enhanced Manufacturing Productivity (Digital Manufacturing and Industrial Internet of Things (IIoT)) 	<ul style="list-style-type: none"> • Platforms/Materials/ Structures • Power Systems • Engines/Propulsion Systems • Drives/Rotors • Mission Systems • Avionics/Navigation • Sensors Networks Data Link and Communication • Survivability • Sustainability • Autonomy • Manned/Unmanned Teaming (MUMT) • Unmanned Aerial Vehicle (UAV) • Component Cyber Security and Aviation Ground Support Equipment/ Systems (AGSE)



OTA CONSORTIUM GROWTH

The number of active
OTA collaborations is **growing**
and that growth is **accelerating**.

In 2000, there was 1 Prototype OTA Consortium
Today there are ~ 33





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