

U.S. Department of State
Bureau of International Security and Nonproliferation, Office of Cooperative Threat Reduction
(ISN/CTR)
Notice of Funding Opportunity

Funding Opportunity Title: FY22 Countering the People's Republic of China Military Civil Fusion (MCF) Strategy and Balancing Risks and Rewards of Emerging Technologies with WMD Applications
Funding Opportunity Number: SFOP0008433
Deadline for Applications: January 31, 2022, 11:59PM EST
CFDA 19.033
Total Amount Available: \$12,000,000

A. PROGRAM DESCRIPTION

The Office of Cooperative Threat Reduction (CTR), part of the U.S. Department of State's Bureau of International Security and Nonproliferation (ISN), sponsors foreign assistance activities funded by the Nonproliferation, Anti-terrorism, Demining and Related Programs (NADR) account, and focuses on mitigating weapons of mass destruction (WMD), related delivery systems, and advanced conventional weapons proliferation and security threats from proliferator states and non-state actors.

This NOFO covers four ISN/CTR lines of effort:

1. Countering the People's Republic of China's (PRC) efforts to licitly and illicitly transfer WMD-applicable advanced and converging technologies to its military as part of its Military-Civil Fusion (MCF) strategy.
2. Countering misuse of emerging technologies with potential WMD and WMD-related delivery systems applications by state and non-State actors, and leveraging emerging technologies to safeguard WMD-related data and materials.
3. Enhancing the capacity of higher education institutions outside the United States to prevent the transfer of sensitive WMD and military-applicable technology to the PRC as part of its MCF strategy.

An underlying aim of all of ISN/CTR's efforts is long-term sustainability to maximize programmatic impact while minimizing the need for foreign partners to rely on outside financial or technical assistance.

Line of Effort 1: Impeding the PRC's MCF Strategy Related to Advanced Technologies with WMD Applications

The PRC is seeking to acquire advanced technologies to gain asymmetric advantage over U.S. and other Western national military capabilities. Advanced technologies of interest include artificial intelligence (AI) and related sub-fields, biotechnology (e.g. DNA sequencers, DNA synthesizers, synthetic biology, statistical functional and microbial genetics, bioinformatics and

computational biology), microprocessor/high performance computing, simulation-based inference, quantum information, and sensing, guidance and propulsion systems. There is also interest in the potential WMD-application of convergence of advanced technologies for novel WMD development or delivery, such as genetics, AI, and nanotechnology drug delivery systems.

The PRC's Chinese Communist Party (CCP) has codified a program of MCF by which civilian entities (e.g., private industry, research institutions, scientists, technicians) must transfer knowledge (tangible and intangible), advanced technology, materials, and equipment to PRC military institutions such as the People's Liberation Army (PLA), Navy (PLAN), and Air Force (PLARF). Toward these ends, PRC entities are attempting to exploit gaps in, or the weak enforcement of, international nonproliferation regimes; obfuscate links to PRC military entities when seeking employment within or partnerships with commercial, government, and other technological entities; and procure sensitive equipment from unsuspecting or indiscriminate commercial or scientific institutions through both legal means (e.g., mergers and acquisitions, research and development collaborations) and illegal means (e.g., forced knowledge transfer (FKT), intellectual property (IP) theft).

To counter this threat, ISN/CTR aims to work with its foreign partners to enhance due-diligence efforts related to the financing, procuring, or distributing sensitive dual-use technologies; mitigate insider and outsider threats at foreign technological institutions targeted by the PRC's MCF strategy; impede the PRC's talent acquisition programs, strengthen research and development integrity norms to prevent FKT and IP theft, enhance information security at proliferation-sensitive technology (PST) firms, train private industry to avoid predatory joint ventures with PLA-affiliates; examine how emerging financial technologies (e.g., cryptocurrencies) can be exploited by the PLA to hide its involvement in corporate dealings in pursuit of sensitive PST; improve PST firms' cybersecurity to defeat PLA-operated cyberattacks; investigate the CCP's foreign direct investments into PST institutions and warn these institutions of business and reputational risks of dealing with PRC entities; and build coalitions of like-minded international science and technology researchers to take actionable measures that preserve nonproliferation norms, uphold research standards, and deny the PRC soft targets for PST acquisition via international research collaborations.

For fiscal year 2022, ISN/CTR's priority countries for this line of effort lie in the following geographic regions, as defined by the U.S. Department of State: [East Asia and Pacific \(EAP\)](#), [South and Central Asia \(SCA\)](#), [Sub-Saharan Africa \(AF\)](#), [Europe and Eurasia \(EUR\)](#), [Near East \(NEA\)](#) and [Western Hemisphere \(WHA\)](#). Importantly, with extremely limited exceptions, ISN/CTR will not provide foreign assistance to [developed or high-income countries](#) (e.g., Japan or the Republic of Korea).

Line of Effort 2: Countering Misuse of Emerging Technologies with Potential WMD and WMD-related Delivery Systems Applications by State and Non-State Actors, and Leveraging Emerging Technologies to Safeguard WMD-Related Data and Materials

Whether through lowering the technological barrier to developing WMD and related delivery systems, broadening the landscape of technologies that could contribute to WMD and WMD-related delivery system efforts, or by increasing security and transparency of materials, data, and

transactions, emerging technologies are becoming increasingly relevant to counter-WMD threat reduction programs.

Emerging technologies of potential interest for their WMD and related delivery system applicability include, but are not limited to: internet of things (IOT), additive manufacturing (i.e. 3-D printing), certain artificial intelligence (AI) and machine learning applications, robotics, automated manufacturing, cloud labs, blockchain, cryptocurrency, advanced materials, etc., particularly where they converge with biotechnology, (gene/genome editing (e.g., CRISPR/Cas9), gene sequencing), bioinformatics, surveillance, detection, and forecasting systems, and other WMD dual-use technologies and WMD-related information. ISN/CTR focuses on emerging technologies that have the potential to: 1) reduce barriers to WMD and WMD-related delivery system development, acquisition, or deployment and are not currently subject to national or international regulatory or export control regimes, or 2) safeguard WMD-applicable materials, equipment, and technologies.

Where emerging technologies converge with WMD and WMD-related delivery systems, ISN/CTR aims to counter the misuse of these technologies by preventing proliferator states and non-state actors from exploiting foreign entities (e.g., private industry, governments, startups) who are developing, using, providing access to or transferring emerging technologies of security concern to understand its dual-use applications and install user-level controls to prevent its misuse, and conduct due diligence in commercial ventures to prevent diversion of emerging technologies to nefarious actors. ISN/CTR also aims to build foreign partner capacity to safeguard WMD-related data and materials using applicable emerging technologies (e.g., blockchain).

For fiscal year 2022, ISN/CTR's priority countries for this line of effort have growing innovation, technology and biotechnology sectors, among others, and lie in the following geographic regions, as defined by the U.S. Department of State: [East Asia and Pacific \(EAP\)](#), [South and Central Asia \(SCA\)](#), [Sub-Saharan Africa \(AF\)](#), [Europe and Eurasia \(EUR\)](#), [Near East \(NEA\)](#), and [Western Hemisphere \(WHA\)](#). Importantly, with extremely limited exceptions, ISN/CTR will not provide foreign assistance to [developed or high-income countries](#).

Line of Effort 3: Enhance the Capacity of Higher Education Institutions to Prevent the Transfer of Sensitive Technology to the PRC

Universities can be a weak link in the global defense against PRC pursuit of WMD and delivery system-related technology. For example, PLA technical officers may disguise their affiliation in order to gain admission and secure visas to study advanced technology at universities abroad as part of the PRC's MCF strategy. The research and technological know-how these officers acquire may then be used to enhance the military and WMD capabilities of the PRC. To address this threat, ISN/CTR seeks to enhance the capacity of higher education institutions to prevent the transfer of sensitive technology to the PRC. Specifically, ISN/CTR seeks proposals for activities that will help academic institutions control access to proliferation-sensitive research and equipment, and establish processes for the comprehensive vetting of students, scholars, faculty, researchers, and beneficiaries of research grants in WMD-applicable fields at risk of exploitation by the PRC.

Objectives

By the end of the award's period of performance, the recipient will have successfully developed and implemented a project or projects to advance ISN/CTR's mission by accomplishing at least one or more of the following goals toward at least one of the lines of effort outlined in this NOFO. Please indicate in your submission which LOEs the proposal addresses:

LOE 1:

- Preventing PRC acquisition of relevant technologies or technological information through forced knowledge or technology transfer;
- Providing training and capacity-building efforts to enhance due-diligence efforts by foreign entities involved in financing, procuring, or distributing sensitive PST;
- Securing foreign technological institutions targeted by the PRC's MCF strategy from both insider and outsider threats (e.g., through robust personnel management and cybersecurity and information security practices);
- Identifying and/or disrupting efforts by the PRC to evade international WMD and WMD-related delivery systems nonproliferation regimes through strategic investments or partnerships;
- Partnering with non-scientific interlocutors such as policymakers, law enforcement, military, and diplomatic audiences to strengthen nonproliferation regimes and norms related to advanced technologies with an applicability to WMD or their delivery systems;
- Assessing (e.g., through open source research) and disrupting PRC acquisition pathways (including material transfer and financial processes) related to WMD-applicable material, dual-use equipment, or expertise; and
- Building coalitions of like-minded international science and technology researchers to take actionable measures that preserve nonproliferation norms, uphold research standards, and deny the PRC soft targets for PST acquisition via international research collaborations.

LOE 2:

- Investigating which emerging technologies pose the greatest potential for misuse and developing targeted interventions to mitigate those risks;
- Assessing (e.g. through open research and industry knowledge) vulnerabilities in emerging technology markets and developing targeted interventions with universities, governments, and private sector including entrepreneurs, incubators, do-it-yourself biological efforts, etc. to mitigate those risks;
- Partnering with non-scientific interlocutors such as policymakers, law enforcement, military, and diplomatic audiences to strengthen nonproliferation regimes and norms related to emerging technologies;
- Engaging with inclusive and diverse foreign audiences, leveraging where possible women and minority focused technology institutions, science, technology, engineering, and mathematics (STEM), and security organizations, is encouraged but not required; and
- Leveraging interest and relationships with likeminded international partners with shared interests in providing foreign assistance to countries with emerging technology and biotechnology markets.

LOE 3:

- Instituting student, scholar, and faculty vetting programs at partner higher education institutions with PST vulnerable to exploitation by the PRC;
- Strengthening the ability of higher education institutions to recognize and safeguard high-risk areas of study with WMD-applications of interest to the PRC; and
- Partnering with foreign experts to raise awareness of the risk of PST transfer to the PRC at higher education institutions.

Funding Priorities

ISN/CTR focuses its resources in countries facing the greatest threats from proliferator states and non-state actors with the reasonable potential (e.g., absorptive capacity, diplomatic willingness, etc.) to successfully implement WMD and related delivery systems threat reduction activities. During fiscal year 2022, ISN/CTR encourages applicants to submit proposals that advance the priority ISN/CTR lines of effort described above, and to explicitly note which specific efforts a proposed project seeks to advance. Projects engaging multiple countries through a regional approach, or are designed as a phased (not to exceed one calendar year) or iterative activity, are encouraged but not required. Recipients shall leverage relevant subject matter experts within the submitting organization or in partnership with other applicants to develop and implement projects that advance ISN/CTR's mission.

B. FEDERAL AWARD INFORMATION

Length of performance period: 12 months

Number of awards anticipated: TBD (dependent on amounts)

Award amounts: ISN/CTR prefers projects that cost less than \$300,000 though awards may involve multiple projects that cumulatively exceed \$500,000. ISN/CTR will prioritize proposals that efficiently meet NOFO and programmatic goals at the lowest technically acceptable cost.

Total available funding: \$12,000,000

Type of Funding: FY22/23 Nonproliferation, Anti-Terrorism, Demining and Related Activities Funds under the Foreign Assistance Act

Anticipated project start date: October 1, 2022

Funding Instrument Type: Cooperative agreement. Cooperative agreements are different from grants in that bureau staff are more actively involved in the grant implementation.

Project Performance Period: Proposed projects should be completed in 12 months or fewer.

This notice is subject to availability of funding.

C. ELIGIBILITY INFORMATION

1. Eligible Applicants

The following organizations are eligible to apply (both domestic and international):

- Not-for-profit organizations
- Public and private educational institutions
- For-profit organizations

- Federally funded research and development centers
- Public International Organizations

2. Cost Sharing or Matching

This program does not require cost sharing, however proposals that demonstrate cost sharing will be welcomed.

The recipient is required to maintain written records to support all allowable costs that are claimed as its contribution to cost-share, as well as costs to be paid by the Federal government. Such records are subject to audit. In the event the recipient does not meet the minimum amount of cost-sharing as stipulated in the recipient's budget, the Bureau's contribution may be reduced in proportion to the recipient's contribution.

3. Other Eligibility Requirements

In order to be eligible to receive an award, all organizations must have a unique entity identifier (Data Universal Numbering System/DUNS number from Dun & Bradstreet), as well as a valid registration on www.SAM.gov.

The organization that submits an application in response to this notice of funding opportunity (NOFO) announcement acknowledges and accepts all of the requirements contained herein. The submission in response to this announcement is voluntary and does not obligate the U.S. Department of State to fund the proposal or proposal preparation costs.

Applicants should submit one proposal package per organization/or PI. If more than one proposal package is submitted from an organization/or PI, all proposals from that institution will be considered ineligible for funding.

D. APPLICATION AND SUBMISSION INFORMATION

Section 1 - Application for Federal Assistance (SF-424):

This form is part of the NOFO proposal package.

Section 2 – Project Proposal(s):

Using the provided template, the applicant must provide a completed project proposal. The proposal form must be completed in its entirety and clearly specify the proposed scope (including which ISN/CTR line(s) of effort) it seeks to advance), deliverables, and timeline. Applicants must specify a point of contact for each project that is proposed.

Section 3 - Budget:

Also using the provided project proposal template, applicants must provide a budget for each project. The budget must identify the total amount of funding requested, with a breakdown of amounts to be spent in the following budget categories.

Application Submission Process: Applicants should submit project proposals electronically using Grants.gov. Thorough instructions on the Grants.gov application process are available at

<http://www.grants.gov>. For questions relating to Grants.gov, please call the Grants.gov Contact Center at 1-800-518-4726.

Required Registrations:

Any applicant listed on the Excluded Parties List System (EPLS) in the [System for Award Management \(SAM\)](#) is not eligible to apply for an assistance award in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR, 1986 Comp., p. 189) and 12689 (3 CFR, 1989 Comp., p. 235), “Debarment and Suspension.” Additionally, no entity listed on the EPLS can participate in any activities under an award. All applicants are strongly encouraged to review the EPLS in SAM to ensure that no ineligible entity is included.

All organizations applying for grants (except individuals) must obtain these registrations. All are free of charge:

- Unique entity identifier from Dun & Bradstreet (DUNS number)
- NCAGE/CAGE code
- www.SAM.gov registration

Step 1: Apply for a DUNS number and an NCAGE number (these can be completed simultaneously)

DUNS application: Organizations must have a Data Universal Numbering System (DUNS) number from Dun & Bradstreet. If your organization does not have one already, you may obtain one by calling 1-866-705-5711 or visiting <http://fedgov.dnb.com/webform>

NCAGE application: Application page here:

<https://eportal.nspa.nato.int/AC135Public/scage/CageList.aspx>

Instructions for the NCAGE application process:

<https://eportal.nspa.nato.int/AC135Public/Docs/US%20Instructions%20for%20NSPA%20NCAGE.pdf>

For NCAGE help from within the U.S., call 1-888-227-2423

For NCAGE help from outside the U.S., call 1-269-961-7766

Email NCAGE@dliis.dla.mil for any problems in getting an NCAGE code.

Step 2: After receiving the NCAGE Code, proceed to register in SAM.gov by logging onto: <https://www.sam.gov>. SAM registration must be renewed annually. Please note that your Central Contractor Registry (CCR) registration must be annually renewed.

Submission Dates and Times

Applications must be submitted on or before January 31, 2022 11:59 p.m. Eastern Time. Applications submitted after 11:59 p.m. will be ineligible for consideration. Begin the application process early, as this will allow time to address any technical difficulties that may arise in advance of the deadline. There will be no exceptions to this application deadline.

Funding Restrictions

Of note, legal restrictions prevent ISN/CTR from assisting to Burma, China, Iran, North Korea, South Sudan, Sudan, and Syria.

E. AWARD SELECTION CRITERIA

Applicants should note that the following criteria serve as a standard against which all project proposals will be evaluated and identify significant considerations that should be addressed in all proposals. ISN/CTR will award a cooperative agreement to the applicant(s) whose offer represents the best overall value to the government from both a technical and cost perspective.

ISN/CTR will evaluate proposals against the stated criteria. Criteria are listed in descending order of importance.

- **Proposed Activity or Activities:** Applications should be responsive to the program framework and policy objectives identified in the solicitation, appropriate in the country/regional and organizational context, and should clearly describe what they propose to do and how they will do it. The proposed project(s) must directly relate to meeting the specified objectives and applicants should include specific information on how these objectives will advance ISN/CTR's mission. ISN/CTR will evaluate the project proposal in terms of how well it addresses the issues at hand, relevance and feasibility of the proposed activities, the timeline for completion, and the extent to which the impact of the project will continue beyond the conclusion of the period of performance.
- **Organizational Capability:** Applicants must demonstrate how their resources, capabilities, and experience will enable them to achieve the stated goals and objectives in an international technical context. The proposal(s) must identify all key partners and organizations that will be involved in implementation of this project.
- **Budget:** Proposed costs will be evaluated for realism, fiscal control practices, and efficiency. ISN/CTR must be able to determine that proposed costs are reasonable, allowable, and allocable to the proposed project activities. ISN/CTR will evaluate the budget to determine if the overall costs are realistic for the work to be performed, if the costs reflect the applicant's understanding of the allowable cost principles established by 2CFR200, and if the costs are consistent with the program narrative.
- **Impactful and Measurable Engagements:** Although complex nonproliferation objectives demand persistent engagement with partner countries, discrete projects should individually advance progress toward a particular objective. Proposals should describe the end-state the project aims to achieve, along with specific, measurable, and realistic benchmarks by which to gauge progress toward that end-state. Compelling project proposals will establish milestones to be met during the training period, and describe observable progress in the adoption, implementation, or enhancement of nonproliferation or sanctions enforcement and compliance best practices.
- **Diversity and Inclusion:** CTR values collaboration and promotes diversity, equity and inclusion with all stakeholders by creating an environment that is open to equal opportunities without regard to race, color, religion, sex, sexual orientation, gender

identity, national origin, protected veteran or disabled status. Implementers are welcome but not required to submit with their proposal a plan for how the implementer intends to further CTR's diversity, equity, inclusion, and accessibility (DEIA) objectives through their programming. Submitted plans will be evaluated separate to the overall evaluation of projects, to ensure that submissions with DEIA plans will not result in the higher evaluation of any proposal package over one that did not submit a DEIA plan.

- **Cyber Security:** Implementer shall be required to establish and follow policy and procedures for an effective implementation of security controls using NIST 800-53 (Rev. 4 or higher)), System and Information Integrity Policy (SI-1) as follows:
 1. Identification and Authentication: Implement multifactor authentication for network access and local access.
 2. Access Controls: Implement security controls for information sharing, remote access and wireless access including:
 - a. Monitoring, controlling, and protecting remote and wireless access to information by auditing information systems components (e.g. workstations, notebook computers, smartphones, and tablets).
 3. Incident Handling: Monitor and report any and all security incidents including breaches to ISN/CTR directly within 48 hours of the incident and include a risk assessment of the security access controls.

F. FEDERAL AWARD ADMINISTRATION INFORMATION

1. Federal Award Notices

The grant award or cooperative agreement will be written, signed, awarded, and administered by the Grants Officer. The assistance award agreement is the authorizing document and it will be provided to the recipient for review and signature by email. The recipient may only start incurring project expenses beginning on the start date shown on the grant award document signed by the Grants Officer.

If a proposal is selected for funding, the U.S. Department of State has no obligation to provide any additional future funding. Renewal of an award to increase funding or extend the period of performance is at the discretion of the U.S. Department of State.

Issuance of this NOFO does not constitute an award commitment on the part of the U.S. government, nor does it commit the U.S. government to pay for costs incurred in the preparation and submission of proposals. Further, the U.S. government reserves the right to reject any or all proposals received.

Anticipated Time to Award: Applicants should expect to be notified of the *recommended* concepts within 90 days after the submission deadline. Following this initial notification, **selected applicants will be expected to submit a full application within 30 days.** ISN/CTR staff will provide information at the point of notification about the requirements for the full

application, which may include revisions to the activities. The full applications will not be subject to further competition, but must incorporate any suggested changes made by ISN/CTR.

Issuance of this NOFO does not constitute an award commitment on the part of the Government, nor does it commit the Government to pay for costs incurred in the preparation and submission of proposals. Further, the Government reserves the right to reject any or all proposals received.

Project Implementation Meeting: The recipient should expect to have a pre-project implementation meeting with ISN/CTR within 30 days after the cooperative agreement is awarded and before any work is performed for the award.

2. Administrative and National Policy Requirements

Terms and Conditions: Before submitting an application, applicants should review all the terms and conditions and required certifications that will apply to this award, to ensure that they will be able to comply. These include:

2 CFR 200, 2 CFR 600, Certifications and Assurances, and the U.S. Department of State Standard Terms and Conditions.

3. Reporting

Reporting Requirements: As a cooperative agreement, reporting and deliverable requirements for this project exceed those of typical grants administered by ISN/CTR. Applicants should pay special attention to these enhanced reporting and deliverable requirements. Specifically:

- Using a template provided by ISN/CTR, the Recipient shall submit quarterly progress reports to the designated Grants Officer (GO), Grants Officer Representative (GOR), and to the following email address ISN-CTR-BUDGET@state.gov detailing:
 - Assistance activities conducted during the reporting period;
 - Milestones and successes achieved to date;
 - Key assistance activities remaining to be implemented with a projected timetable;
 - Details of any problems encountered with proposed solutions; and
 - Any other pertinent information requested by ISN/CTR.
- The Recipient shall provide the GO and GOR with copies of all materials developed under this cooperative agreement.
- In addition to regular quarterly reports, the Recipient shall furnish the GOR with ad hoc reports as requested from time to time.

In addition to the above, the Recipient shall submit quarterly financial reports throughout the project period. Financial reports are due 30 days after the reporting period. Final programmatic and financial reports are due 90 days after the close of the project period.

Applicants should be aware of the post award reporting requirements reflected in [2 CFR 200 Appendix XII—Award Term and Condition for Recipient Integrity and Performance Matters](#).

G. FEDERAL AWARDING AGENCY CONTACTS

For programmatic questions about this solicitation, please contact:

ISN-CTR-China-DL@state.gov

For interagency agreement (IAA) submissions, directly submit application to the relevant program team and copy the budget team: ISN-CTR-BUDGET@state.gov

Direct any NOFO submission (non-programmatic) questions to: ISN-CTR-BUDGET@state.gov

H. OTHER INFORMATION

Guidelines for Budget Justification

Personnel and Fringe Benefits: Describe the wages, salaries, and benefits of temporary or permanent staff who will be working directly for the applicant on the program, and the percentage of their time that will be spent on the program.

Travel: Estimate the costs of travel and per diem for this program, for program staff, consultants or speakers, and participants/beneficiaries. If the program involves international travel, include a brief statement of justification for that travel.

Equipment: Describe any machinery, furniture, or other personal property that is required for the program, which has a useful life of more than one year (or a life longer than the duration of the program), and costs at least \$5,000 per unit.

Supplies: List and describe all the items and materials, including any computer devices, that are needed for the program. If an item costs more than \$5,000 per unit, then put it in the budget under Equipment.

Contractual: Describe goods and services that the applicant plans to acquire through a contract with a vendor. Also describe any sub-awards to non-profit partners that will help carry out the program activities.

Other Direct Costs: Describe other costs directly associated with the program, which do not fit in the other categories. For example, shipping costs for materials and equipment or applicable taxes. All “Other” or “Miscellaneous” expenses must be itemized and explained.

Alcoholic Beverages: Please note that award funds cannot be used for alcoholic beverages.

Indirect Costs: These are costs that cannot be linked directly to the program activities, such as overhead costs needed to help keep the organization operating. If your organization has a Negotiated Indirect Cost Rate (NICRA) and includes NICRA charges in the budget, attach a copy of your latest NICRA. Organizations that have never had a NICRA may request indirect costs of 10% of the modified total direct costs as defined in 2 CFR 200.68.

“Cost Sharing” refers to contributions from the organization or other entities other than the U.S. Embassy. It also includes in-kind contributions such as volunteers’ time and donated venues.