

**Request for Project Proposals**



**Solicitation Number: MTEC-20-05-IMPROVE**  
**“Investigating Methods for Performance Overdrive (IMPROVE)”**

Issued by:  
Advanced Technology International (ATI),  
MTEC Consortium Manager (CM)  
315 Sigma Drive  
Summerville, SC 29486  
for the  
Medical Technology Enterprise Consortium (MTEC)

***Request Issue Date: February 28, 2020***

***Solutions Brief Due Date: April 2, 2020***  
***Noon Eastern Time Zone***

***White Papers Are NOT Required***

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## **1 Executive Summary**

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### **1.1. The Medical Technology Enterprise Consortium**

The Medical Technology Enterprise Consortium (MTEC) is an enterprise partnership in collaboration with industry and academia to facilitate research and development activities, in cooperation with the U.S. Army Medical Research and Development Command (USAMRDC) and other DoD agencies in the biomedical sciences (including but not limited to drugs, biologics, vaccines, medical software and medical devices) to protect, treat and optimize the health and performance of U.S. military personnel. MTEC is a nonprofit corporation with the following principal objectives:

- (a) biomedical research and prototyping;
- (b) exploration of private sector technology opportunities;
- (c) technology transfer; and
- (d) deployment of intellectual property (IP) and follow-on production.

MTEC is openly recruiting members to join a broad and diverse biomedical consortium that includes representatives from large businesses, small businesses, contract research organizations, “nontraditional” defense contractors, academic research institutions and not-for-profit organizations; for more information on the MTEC mission, see the Proposal Preparation Guide (PPG) and MTEC website.

MTEC operates under an Other Transaction Agreement (OTA) for prototypes with USAMRDC. As defined in the OTA Guide dated November 2018, a prototype project addresses a proof of concept, model, reverse engineering to address obsolescence, pilot, novel application of commercial technologies for defense purposes, agile development activity, creation, design, development, demonstration of technical or operational utility, or combinations of the foregoing. A process, including a business process, may be the subject of a prototype project. Although assistance terms are generally not appropriate in OT agreements, ancillary work efforts that are necessary for completion of the prototype project, such as test site training or limited logistics support, may be included in prototype projects. A prototype may be physical, virtual, or conceptual in nature. A prototype project may be fully funded by DoD, jointly funded by multiple federal agencies, cost-shared, funded in whole or part by third parties, or involve a mutual commitment of resources other than an exchange of funds.

### **1.2. Purpose**

This solicitation, issued by the MTEC Consortium Manager (CM), Advanced Technology International (ATI), represents a Request for Project Proposals (RPP) for MTEC support of the support of the U.S. Army Medical Research and Development Command (USAMRDC) Joint Program Committee-1 (JPC-1)/Medical Simulation and Information Sciences Research Program (MSISRP). Military relevance is a critical component of Solution Brief submission. Strategic and tactical oversight for the award(s) supported by this RPP will be provided by the JPC-1/MSISRP.

This program aims to support the development of an automated 3D videography system that records trainee skill performance, compares trainee performance to a trained deep learning model of the performance, and provides systematic feedback to the trainee regarding the mismatch between the expected (model) performance and the trainee's actual performance.

\*Note: Pending successful completion of this effort, the Government may issue a non-competitive follow-on production contract or transaction pursuant to 10 USC 2371b section f.

## **2 Administrative Overview**

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### **2.1. Request for Project Proposals (RPP)**

Each MTEC Solution Brief submitted must be in accordance with the mandatory format provided in the MTEC PPG, which is available on the Members-Only MTEC website at [www.mtec-sc.org](http://www.mtec-sc.org). **White papers are not required for this RPP.** The Government reserves the right to award Solution Briefs received from this RPP on a follow-on prototype Other Transaction Agreement (OTA) or other stand-alone OTAs as necessary to meet mission requirements.

### **2.2. Proposers Conference**

MTEC will host a Proposers Conference within two (2) weeks after the release of the RPP that will be conducted via webinar. Further instructions will be forthcoming via email.

### **2.3. Funding Availability and Type of Funding Instrument Issued**

The U.S. Government (USG) Department of Defense (DoD) currently has available approximately \$3.5 Million (M). Any potential follow-on funding would be negotiated based on outcomes, cost sharing, partner matching and estimates for additional study completion.

The anticipated Period of Performance (PoP) is 18 months; however, faster timelines are acceptable (Tasks 1 and 2 will proceed concurrently). Dependent on the results and deliverables, additional time may be added to the period of performance for follow-on tasks.

As of the release date of this RPP, future year Defense Appropriations Bills have not been passed and there is no guarantee that any additional funds will be made available to support this program. The funding estimated for this RPP is approximate and subject to realignment. Funding of Solution Briefs received in response to this RPP is contingent upon the availability of federal funds for this program. Award funding will be structured incrementally and based upon completion of Milestones and Deliverables.

It is expected that MTEC will make up to 3 awards to qualified teams to accomplish the statement of work. If a single proposal is unable to sufficiently address the entire scope of this RPP's technical requirements (outlined in Section 5.1, several Offerors may be asked to work together

in a collaborative manner. However, if an optimal team is not identified, then MTEC may make multiple, individual awards to Offeror(s) to accomplish subset(s) of the key tasks.

The Government-selected Awards will be funded under the Other Transaction Agreement (OTA) Number W81XWH-15-9-0001 with MTEC administered by the CM, ATI. The CM will negotiate and execute a Base Agreement with MTEC members. This Base Agreement will be governed by the same provisions as the OTA between the USG and MTEC. Subsequently, any Solution Brief that is selected for award will be funded through an Award issued under the Base Agreement. A sample of the MTEC Base Agreement can be found on the MTEC Members-Only website at [www.mtec-sc.org](http://www.mtec-sc.org).

**At the time of the submission, if Offerors have not yet executed a Base Agreement, then Offerors must certify on the cover page of their Solution Brief that, if selected for award, they will abide by the terms and conditions of the latest version of the MTEC Base Agreement.** If the Offeror already has executed an MTEC Base Agreement with the MTEC CM, then the Offeror must state on the cover page of its Solution Brief that, if selected for award, it anticipates the proposed effort will be funded under its executed MTEC Base Agreement.

Offerors are advised to check the MTEC website periodically during the Solution Brief preparation period for any changes to the MTEC Base Agreement terms and conditions as well as clarifications found in Frequently Asked Questions (FAQ) responses.

#### **2.4. MTEC Member Teaming**

While teaming is not required for this effort, Offerors are encouraged to consider teaming during the proposal preparation period (prior to proposal submission) if they cannot address the full scope of technical requirements of the RPP or otherwise believe a team may be beneficial to the Government. MTEC members are encouraged to use the MTEC Database Collaboration Tool. The purpose of the tool is to help MTEC member organizations identify potential teaming partners by providing a quick and easy way to search the membership for specific technology capabilities, collaboration interest, core business areas/focus, R&D highlights/projects, and technical expertise. The Primary Point of Contact for each member organization is provided access to the collaboration database tool to make edits and populate their organization's profile. There are two sections as part of the profile relevant to teaming:

- "Collaboration Interests" - Select the type of teaming opportunities your organization would be interested in. This information is crucial when organizations need to search the membership for specific capabilities/expertise that other members are willing to offer.
- "Solicitation Collaboration Interests" - Input specific active solicitations that you are interested in teaming on. This information will help organizations interested in a specific funding opportunities identify others that are interested to partner in regards to the same funding opportunity. Contact information for each organization is provided as part of the member profile in the collaboration database tool to foster follow-up conversations between members as needed.

The Collaboration Database can be accessed via the “MTEC Profiles Site” tab on the MTEC members-only website.

## **2.5. Proprietary Information**

The MTEC CM will oversee submission of Proposals submitted in response to this RPP. The MTEC CM shall take the necessary steps to protect all proprietary information and shall not use such proprietary information for purposes other than the evaluation of an Offeror’s Proposal and the subsequent agreement administration if the Proposal is selected for award. In accordance with the PPG, please mark all Confidential or Proprietary Information as such. An Offeror’s submission of a Proposal under this RPP indicates concurrence with the aforementioned CM responsibilities.

Also, as part of MTEC’s mission to incorporate philanthropic donations, MTEC frequently makes contact with private entities (e.g., foundations, investor groups, organizations, individuals) that award grants or otherwise co-fund research, and/or operates in research areas that are aligned with those of MTEC. These private entities may be interested in reviewing certain Proposals within their program areas, allowing opportunities to attract supplemental funding sources. On your Proposal Cover Page, please indicate your willingness to allow MTEC Officers and Directors access to your Proposal for the purposes of engaging in outreach activities with these private organizations. MTEC Officers and Directors granted Proposal access have signed Non-disclosure Agreements (NDAs) and Organizational Conflict of Interest (OCI) statements. Additionally, these MTEC Officers and Staff represent organizations that currently are not MTEC members, and therefore their parent organizations are not eligible to submit Proposals or receive any research project funding through MTEC. Additionally, all Technical Evaluation Panel participants will agree to, and sign a nonproprietary information and conflict of interest document.

## **2.6. Offeror Eligibility**

Offerors submitting Solution Briefs as the prime contractor must be MTEC members of good standing by **March 30, 2020**.

## **2.7. Inclusion of Nontraditional Defense Contractors or Nonprofit Research Institutions**

Proposals that fail to meet the mandatory statutory conditions with regard to the appropriate use of Other Transaction authority, as listed below, will not be evaluated and will determined ineligible for award.

Mandatory statutory conditions (the Offeror shall assert that at least one of the one of the following conditions is met):

- (1) There is at least one nontraditional defense contractor or nonprofit research institution participating to a significant extent in the prototype project.
- (2) All significant participants in the transaction other than the Federal Government are small

businesses (including small businesses participating in a program described under section 9 of the Small Business Act (15 U.S.C. 638)) or nontraditional defense contractors.

(3) At least one third of the total cost of the prototype project is to be paid out of funds provided by sources other than the Federal Government.

The Offeror shall submit Warranties and Representations (see Attachment 2 of the PPG) specifying the critical technologies being offered and/or the significant extent of participation of the nontraditional defense contractor, small business or nonprofit research institution. The nontraditional defense contractor can be an individual so long as he/she has a DUNS Number and meets the requirements in the Warranties and Representations. The significance of the nontraditional defense contractor's, small business' or nonprofit research institution's participation shall be explained in detail in the signed Warranties and Representations. Inadequate detail can cause delay in award.

Per the DoD OT Guide, rationale to justify a *significant extent* includes:

1. Supplying a new key technology, product or process
2. Supplying a novel application or approach to an existing technology, product or process
3. Providing a material increase in the performance, efficiency, quality or versatility of a key technology, product or process
4. Accomplishing a significant amount of the prototype project
5. Causing a material reduction in the cost or schedule of the prototype project
6. Provide for a material increase in performance of the prototype project

## **2.8. Nontraditional Defense Contractor Definition**

A nontraditional defense contractor is a business unit that has not, for a period of **at least one year prior to the issue date of the Request for Project Proposals**, entered into or performed on any contract or subcontract that is subject to full coverage under the cost accounting standards (CAS) prescribed pursuant to section 26 of the Office of Federal Procurement Policy Act (41 U.S.C. 422) and the regulations implementing such section.

## **2.9. Cost Sharing Definition**

Cost sharing is defined as the resources expended by the award recipients on the proposed statement of work (SOW). If cost sharing is proposed, then the Offeror shall state the amount that is being proposed and whether the cost sharing is a cash contribution or in-kind contribution; provide a description of each cost share item proposed; the proposed dollar amount for each cost share item proposed; and the valuation technique used (e.g., vendor quote, historical cost, labor hours and labor rates, number of trips, etc.). Cost sharing above the statutory minimum is

encouraged if possible, as it leads to stronger leveraging of Government-contractor collaboration.

### **Cash Contribution**

Cash Contribution means the Consortium and/or the Research Project Awardee (or Awardees' lower tier subawards) financial resources expended to perform a Research Project. The cash contribution may be derived from the Consortium's or Research Project Awardee (or Awardees' subawards) funds or outside sources or from nonfederal contract or grant revenues or from profit or fee on a federal procurement contract.

An Offeror's own source of funds may include corporate retained earnings, current or prospective Independent Research and Development (IR&D) funds or any other indirect cost pool allocation. New or concurrent IR&D funds may be utilized as a cash contribution provided those funds identified by the Offeror will be spent on performance of the Statement of Work (SOW) of a Research Project or specific tasks identified within the SOW of a Research Project. Prior IR&D funds will not be considered as part of the Offeror's cash.

Cash contributions include the funds the Offeror will spend for labor (including benefits and direct overhead), materials, new equipment (prorated if appropriate), awardees' subaward efforts expended on the SOW of a Research Project, and restocking the parts and material consumed.

### **In-Kind Contribution**

In Kind Contribution means the Offeror's non-financial resources expended by the Consortium Members to perform a Research Project such as wear-and-tear on in-place capital assets like machinery or the prorated value of space used for performance of the Research Project, and the reasonable fair market value (appropriately prorated) of equipment, materials, IP, and other property used in the performance of the SOW of the Research Project.

Prior IR&D funds will not be considered as part of the Consortium Member's cash or In-Kind contributions, except when using the same procedures as those that authorize Pre-Award Costs, nor will fees be considered on a Consortium Member's cost sharing portion.

See the MTEC PPG for additional details. If the offer contains multiple team members, this information shall be provided for each team member providing cost share.

### **2.10. MTEC Assessment Fee**

Per Section 3.4 of the Consortium Member Agreement (CMA), each recipient of a Research Project Award under the MTEC OTA shall pay MTEC an amount equal to 1% of the total funded value of each research project award. Such deposits shall be due no later than 90 days after the research project award is executed. Awardees are not allowed to use MTEC funding to pay for their assessment fees.

Additionally, MTEC has established two methods of payment to be made to MTEC surrounding the licensing/commercialization of Intellectual Property developed with funding received from MTEC Research Project Awards:

#### **Royalty Payment Agreements**

Government-funded research projects awarded through MTEC will be subject to a 10% royalty on all Net Revenues received by the Research Project Award recipient resulting from the licensing/commercialization of the technology, capped at 200% of the Government funding provided.

#### **Additional Research Project Award Assessment**

In lieu of providing the royalty payment agreement described above, members receiving Research Project Awards may elect to pay an additional assessment of 2% above the standard assessment percentage described in Section 3.4 of the CMA. This additional assessment applies to all research project awards, whether the award is Government funded or privately funded.

#### **2.11. Intellectual Property and Data Rights**

Intellectual Property (IP) rights for MTEC Research Project Awards will be defined in the terms of an awardee's Base Agreement and resultant Task Orders. MTEC reserves the right to assist in the negotiation of IP, royalties, licensing, future development, etc., between the government and the individual performers during the entire award period.

The Offeror shall comply with the terms and conditions defined in the Base Agreement regarding Data Rights. However, Offerors should be aware that the Government intends to specially negotiate the rights in intellectual property and technical data developed under this agreement and negotiate FDA sponsorship and other regulatory rights on a case-by-case basis. Accordingly, for this acquisition, the government seeks the following Preferred Terms: **It is expected that all deliverables, including the computer algorithms, hardware, and methods, for this RPP will be not only be open source, they will be freely and without reservation be made available to qualified individuals and organizations.** These specially negotiated rights may differ from the base MTEC terms.

If the Preferred Terms are acceptable to the Offeror, the Offeror shall include the Preferred Terms in its Solution Brief submission.

If applicable, the Offeror shall complete the below table for any items to be furnished to the Government with restrictions and include this table as Attachment C of the Solution Brief submission. An example is provided below.

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Organization Asserting Restrictions	Milestone # Affected
Software XYZ	Previously developed software funded exclusively at private expense	Restricted	Organization XYZ	Milestones 1, 3, and 6
Technical Data Description	Previously developed exclusively at private expense	Limited	Organization XYZ	Milestone 2
Technical Data Description	Previously developed with mixed funding	Government Purpose Rights	Organization XYZ	Milestone 2

**2.12. Expected Award Date**

Offeror should plan on the period of performance beginning September 30, 2020 (subject to change). The Government reserves the right to change the proposed period of performance start date through negotiations via the CM and prior to issuing a Research Project Award.

**2.13. Anticipated Solutions Brief Selection Notification**

As the basis of selections is completed, the Government will forward their selections to MTEC CM to notify Offerors. Proposers will be notified by letter from the MTEC of the results of the evaluation. Those successful will move forward to the next phase of solution brief pitch while those not selected will gain evaluation rationale for non-selection.

**3 Solution Brief**

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**3.1. Solution Brief**

The MTEC will use a streamlined, interactive approach for this RPP. Because of the nature of the requirements set forth in this RPP, this streamlined, interactive approach is anticipated to be a better means to highlight company methodologies and skills that should allow the Government to gain a fuller appreciation of the work required to be completed. It provides more freedom

and initiative to the Offeror to describe how the Offeror would approach and solve such an action. The following sections describe the formats and requirements of the Solution Brief.

Offerors who submit Solution Briefs in response to this RPP must submit by the date on the cover page of this RPP. Solution Briefs received after the time and date specified will not be evaluated.

### **3.2. Solution Brief Submission**

Instructions on how to submit are included in the RPP version that is posted on the MTEC Members Only Site.

MTEC membership is required for the submission of a Solution Brief. Offerors must be MTEC Members in good standing. Offerors submitting White Papers as the prime contractor must be MTEC members of good standing by Monday, March 30, 2020.

Do not submit any classified information in the Solution Brief submission.

### **3.3. Submission Format**

Offerors shall submit files in Microsoft Office formats or Adobe Acrobat (PDF – portable document format) as indicated below. ZIP files and other application formats are not acceptable. All files must be print-capable and without a password required. Filenames shall contain the appropriate filename extension (.docx, .doc, .pptx, .ppt, .xlsx, .xls or .pdf). Filenames should not contain special characters. Apple users must ensure the entire filename and path are free of spaces and special characters.

An automated BIDS receipt confirmation will be provided by email. Offerors may submit in advance of the deadline and update (or replace any of the files) up until the submission deadline. **Neither MTEC nor ATI will make allowances/exceptions for submission problems encountered by the Offeror using system-to-system interfaces. If the Offeror receives errors and fails to upload the full submission prior to the submission deadline, the submission may not be accepted. It is the Offeror's responsibility to ensure a timely and complete submission.**

## **4 Solution Brief Preparation Instructions**

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### **4.1. General Instructions**

The Solution Brief and Cost Proposal format provided in this MTEC RPP are mandatory and shall reference this RPP number (MTEC-20-05-IMPROVE). Offerors are encouraged to contact the Point-of-Contact (POC) identified herein up until the Solution Brief submission date/time to clarify requirements.

All eligible Offerors shall submit Solution Briefs for evaluation according to the criteria set forth herein. Offerors are advised that only ATI as the MTEC's CM, with the approval of the

Government Agreements Officer, is legally authorized to contractually bind or otherwise commit funding for selected Awards as result of this RPP.

## 5 Technical Requirements

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### 5.1. Introduction

**NOTE: It is expected that all deliverables, including the computer algorithms, hardware, and methods, will be not only be open source, they will be freely and without reservation be made available to qualified individuals and organizations.**

A well-trained medical corps is necessary for readiness, resilience, and reliability. Simulation-based medical skill training, both initial and refresher training, require systematic, objective, high quality trainee evaluation and feedback. Currently, evaluation and feedback are based on the trainer's mental model of the activity – where a discrepancy between the learner's performance and the trainer's mental model of performance is fed back by the trainer to the learner to improve performance.

Unfortunately, the learner's training, evaluation, and feedback are usually performed by the same instructors who teach the training courses. There are at least five problems with the current approach. First, “unequal ability;” not all trainers are equally good at evaluation and feedback. Second, “lack of qualifications;” trainers may be called upon to evaluate and provide feedback on training they are not competent to perform. Third, “idiosyncratic evaluation;” evaluation is subjective, different trainers can make different assessments of the same trainee performance. Fourth, “conscious and unconscious bias;” evaluation can be influenced by factors other than the trainee’s objective performance. Fifth, “paucity of instructors;” there are too few qualified instructors, this is a choke-point on training. To overcome these problems, the Government would like to develop IMPROVE, an advanced training and evaluation system.

The field of the high-speed videography of movement and its analysis by deep learning algorithms has progressed to a point where we can now capture and analyze sophisticated behaviors in real time. The Government would like to apply this burgeoning area of research to skill training. This program focuses on the development of an automated 3D videography system that records trainee skill performance, compares trainee performance to a trained deep learning (e.g., a convolutional neural network) model of the performance, and provides systematic feedback to the trainee regarding the mismatch between the expected (model) performance and the trainee’s actual performance (Project I: Train-for-gain).

In order to apply this system to Military Health System (MHS) simulation-based training, the current training simulation-based activities and how trainees are evaluated needs to be determined. Furthermore, the simulation-based training activities that would be most amenable

to the machine learning system needs to be selected. Generally, the MHS has two main simulation domains: point-of-injury (POI) and hospital-based medicine (HBM). POI simulation is primarily aimed at first responders (combat lifesavers, medics, corpsman, technicians) who are close to the battle action. Assessments in most POI simulations consist of the direct observation of learners' performances by Tactical Combat Casualty Care (TCCC) instructors using either global judgments or checklists. HBM simulation is primarily aimed at physicians and nurses within a medical treatment facility (MTF), usually a hospital, although simulation in field hospitals and large deck ships is also part of this domain. Assessment is by direct observation of learners' performance by instructors and usually consists of checklists of performance items successfully completed by the trainee.

Once it is possible to accurately model behavior, the team can begin to model the neural processes that give rise to the behavior. The mapping of the neural processes that generate behavior is a highly developed area of neuroscience. The Government would like to understand the relationship between neural function and behavior in order to tailor training to the neural processes that are responsible for learning, so that we can optimize training methods and performance. The goal of this project is to spatio-temporally associate neural processes with learning specific tasks (Task 2: Brain-to-train).

## 5.2. Research Program

### **Task 1: Train-for-gain**

#### *Scope of work:*

- 1.1. Current simulation-based training. Conduct a scan of the current MHS simulation point-of-injury and hospital-based training programs. For each major simulation-based training program, conduct a scan of how trainees are being evaluated and provided with feedback. Analyze the simulation-based programs to determine which would be most amenable to the IMPROVE system.  
[\*NOTE, Offerors may propose a Technical Strategy in their Solution Brief that includes a partnership with a DoD laboratory to gain access to the required information to execute Task 1.1. For Offerors that do not have a DoD partnership in place for this task, MTEC will make an introduction to an appropriate contact at an appropriate DoD laboratory. **MTEC will only make introductions for those Offerors whose Step 1 Solution Briefs are invited to Step 2 (Pitches) of the RPP process.**]
- 1.2. Development of IMPROVE system. Develop an automated 3D videography system that records trainee skill performance, compares trainee performance to a trained deep learning (e.g., a convolutional neural network) model of the performance, and provides systematic feedback to the trainee regarding the mismatch between the expected (model) performance and the trainee's actual performance.

- 1.3. Human subject testing #1. Test the IMPROVE system in a real-world simulation-based training program to demonstrate its individual learner efficacy.
- 1.4. Generalization. Generalize the IMPROVE system function in other simulation-based training programs (in addition to the training program tested in Task 1.3).
- 1.5. Coordinated activity. Extend the single IMPROVE system to record, analyze, and provide feedback to multiple trainees who are performing a coordinated activity.
- 1.6. Human subject testing #2. Test the IMPROVE system in a real-world simulation-based training program to demonstrate its efficacy in a coordinated activity setting.

**Task 1 Deliverables\*:**

- A 3D audiovisual system to record trainee positions and movements.
- The construction of detailed 3D electronic representations of the trainee positions and movements, without the use of robotics, exoskeletons, or body sensors/markers.
- A machine learning algorithm that accurately compares the 3D representation of the trainee positions and movements to the machine learning model of those positions and movements.
- A feedback system that effectively demonstrates to the trainee and trainer the discrepancy between expected and observed performance.
- Empirical results for Tasks 1.3 – 1.6.

**Task 2: (Brain-to-train)**

*Scope of Work:*

- 2.1. Select a goal-directed behavior, an integrated set of actions, related to training.
- 2.2. Create an electronic map of the neural processes that are associated with the behavior.
- 2.3. Create an AI-deep learning system that associates the neural processes with the behavior.
- 2.4. Demonstrate in simulation how the AI-deep learning system activates the neural processes and generates the behavior.
- 2.5. Demonstrate in an animal model how the AI-deep learning system activates the neural processes and generates the behavior.

**Task 2 Deliverables\*:**

- A goal-directed behavior, an integrated set of actions, related to training.
- An electronic map of the neural processes that are associated with the behavior.
- An AI-deep learning system that associates the neural processes to the behavior.
- A electronic demonstration in simulation of the AI-deep learning system activating neural processes and generating the behavior and/or a demonstration in an animal model of the AI-deep learning system activating neural processes and generating the behavior.

*\*NOTE: It is expected that all deliverables, including the computer algorithms, hardware, and methods, will be not only be open source, they will be freely and without reservation be made available to qualified individuals and organizations.*

### **5.3. Potential Follow-On Work**

There is potential for award of follow-on Task 3 based on the success of this project (subject to change depending upon Government review of work completed). Information regarding Potential Follow-on Task 3 is included to provide context so the Offeror is aware of potential work that could follow-on after the completion of Tasks 1 and 2. The Offeror does not need to price or provide details on how they would complete this follow-on work (Task 3), but they should take this information into consideration to ensure that the proposed work for Tasks 1 and 2 can smoothly transition into Optional Task 3.

#### **Potential Follow-on Task 3: (Train-in-the-brain)**

*Scope of Work:*

- 3.1. Train-in-the-brain. Once we understand the neural areas of the brain that are responsible for behavior, we would like to systematically stimulate those neural areas in order to teach a skill to a learner. One approach would be to activate the neural areas, observe the learner's behavior, and modify the stimulation until the behavior is correctly performed.

### **5.4. References**

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#### **5.6. Restrictions on Animal and Human Subjects:**

Solution Briefs must comply with restrictions and reporting requirements for the use of animal and human subjects, to include research involving the secondary use of human biospecimens and/or human data. The Awardee shall ensure local Institutional Animal Care and Use Committee (IACUC) and Institutional Review Board (IRB) approvals, continuing review (in the intervals specified by the local IACUC and IRB, but at a minimum, annually), and approval by the U.S. Army Animal Use and Review Office (ACURO) and U.S. Army Human Research Protections Office (HRPO). Offerors shall include IACUC, ACURO, IRB and HRPO review and approval in the SOW/Milestones Table submitted with the Solution Brief Pitch.

***These restrictions include mandatory government review and reporting processes that will impact the Offeror’s schedule.***

For example, the clinical studies under this RPP shall not begin until the USAMRDC Office of Research Protections (ORP) provides authorization that the research may proceed. The USAMRDC ORP will issue written approval to begin research under separate notification. Written approval to proceed from the USAMRDC ORP is also required for any Research Project Awardee (or lower tier subawards) that will use funds from this award to conduct research involving human subjects. Offerors must allow at least 60 days in their schedule for the ORP review and authorization process.

## **6 Solution Brief Preparation**

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### **6.1. Preparation of the Solution Brief**

Offerors submitting Solution Briefs in response to this RPP will be required to submit using the following steps outlined below:

#### ***Step 1: Solution Brief***

The Offeror shall submit a Solution Brief, which describes the overall technical concept and approach along with the viability toward the Offeror's specific effort. The following sections must be included in the Solution Brief:

- **Cover Page** (included in the page limit) must include the following information:
  - Title of Solution Brief
  - Offeror's name and contact information (such as name of the organization, point of contact's name, email address, phone number, mailing address, etc.)
  - Statement that "This Solution Brief is submitted pursuant to the RPP MTEC-20-05-IMPROVE"
  - Dates of submission and signature of official authorized to obligate the institution contractually
  - Willingness to allow MTEC Officers access to your Solution Brief for the purposes of engaging in outreach activities with private sector entities: Indicate YES or NO [As part of MTEC's mission to incorporate philanthropic donations, MTEC frequently makes contact with private sector entities (e.g., foundations, organizations, individuals) that award grants or otherwise co-fund research, and/or operate in research areas that are aligned with those of MTEC. Additional private entities may be interested in reviewing certain Solution Briefs and Cost Proposals within their program areas, allowing opportunities to attract supplemental funding sources. Please indicate your willingness to allow MTEC access to your Solution Brief for the purposes of engaging in outreach activities with these private sector entities. MTEC staff has signed NDAs and OCI statements.]

- **Approach:** [Briefly describe your approach to solving the problem. Include relevant background data about your approach.]
- **Objectives:** [Specify the objectives of the proposed effort.]
- **Technical Strategy:** [Outline the proposed methodology by Task in sufficient detail to show a clear course of action that addresses the technical requirements described in this RPP. This section should identify any pilot or existing commercial methodology/technology or the development of such during the course of the work. If novel technology or methods are to be employed, then identify the path to maturation.]
- **Anticipated Outcomes:** [Provide a description of the anticipated outcomes from the proposed work. List milestones and deliverables from the proposed work.]
- **Experience:** [The Solution Brief shall describe the experience of the Principal Investigator, key personnel, partner organizations, and associated subject matters experts that are required to meet the program's objective and requirements. Identify any work of a similar nature that could be used to gauge the effectiveness and worthiness of the technical or methodological approach. This section should not highlight the contractual details of relevant experience, but should emphasize past work that is relevant and similar in nature (complexity, size, requirements) to this request and how that work's outcome relates to the expectations set forth in this RPP. Offerors should indicate how much of this relevant experience and past effort they will leverage for the proposed effort. Offeror may choose format and method of conveying this.]
- **Timeline:** [Indicate the total proposed delivery schedule. Provide an estimated Gantt Chart of the major activities proposed.]
- **Project Management Plan:** [The Solution Brief shall describe the overall project management plan.]
- **Data Rights:** Provide as Attachment C to Solution Brief.
  - Please reference RPP Section 2.11.
- **Cost Share:** [While not a requirement, Offerors are strongly encouraged to discuss the ability to bring leveraged funding/cost share to complete the project goals.]
- **Non-traditional defense contractor, nonprofit research institution, or 1/3 cost sharing:** [Describe the plan to include significant participation of a non-traditional defense contractor, nonprofit research institution, small businesses, or the ability to meet 1/3 cost sharing requirement. Refer to Section 2.7 for more information.]

- **Rough Order of Magnitude (ROM) Pricing:** [Refer to Attachment B].

The Solution Brief is limited to fifteen (15) pages (including cover page), 12 point font (or larger), single-spaced, single-sided, 8.5 inches x 11 inches). Smaller type may be used in figures and tables, but must be clearly legible. Margins on all sides (top, bottom, left, and right) should be at least 0.5 inch. Solution Briefs **exceeding the 15 page limit will not be accepted.**

MTEC will email receipt confirmations to Offerors upon submission of Solution Briefs. Offerors may submit Solutions Briefs in advance of the deadline.

*Solution Brief Evaluation:*

The CM will distribute all Solution Briefs to the Government for evaluation. Solution Briefs will be evaluated based on the following criteria:

- Research Strategy:
  - Whether the proposed work supports the objectives of MSISRP. How well the research will address a healthcare issue relevant to military Service members.
  - How well the specific aims and proposed methodology support the technical objectives and the development of the prototype.
  - How well the Solution Brief defines a prototype that meets the requirements set forth in this RPP. Whether the prototype is based on promising preliminary data, sound scientific rationale, and demonstrated proof-of-concept.
- Potential for Transition and Commercialization:
  - How well the Offeror demonstrates potential commercial use, and/or movement into the next phase of desired research, development, or testing.
  - An achievable approach to regulatory approval (if applicable).
  - How well the Offeror provides sufficient evidence that the effort is ready to move into the proposed stage of research, development, or clinical testing.
- Cost:
  - Estimated ROM costs represent reasonable value for proposed solution offered.

***Upon review of the Solution Briefs, Offerors may be invited into Step 2 of the Solution Brief process. Offerors who are not invited to proceed into Step 2 will be provided feedback.***

***Step 2: Solution Brief Pitch:***

In Step 2, the Offeror(s) shall provide a virtual or in-person “pitch” of the proposed project along with a SOW/Milestone Payment Schedule (MPS) and ROM Pricing (see Attachment A) during a meeting with the Government sponsors for the research. The pitch shall provide more details

about the technical and business viability of the proposed work outlined in Step 1. Specifically, the pitch should include the following:

- **Description:** The Offeror shall provide a more robust description of their approach and emphasize why this approach is expected to result in a successful outcome. This approach shall follow the SOW/MPS provided with the pitch.
- **Progress:** The Offeror shall describe the milestones provided with objective, quantifiable, and measurable metrics that will be used to measure progress during the period of performance/delivery schedule and describe the oversight managerial methods that will be employed to maintain a quality and timely performance.
- **Relevant Experience:** The Offeror will convey details related to key personnel and past performance(s) that demonstrate relevance to the scope of the proposed work and build confidence in the team's capabilities.
- **Effectiveness (Opportunity and Risk):** The Offeror shall identify, assess, evaluate and clearly convey items (for known-knowns; known-unknowns and potential unknown-unknowns) for opportunities (e.g., reduction in cost or schedule, and/or improvement in performance) and risks within each appropriate project Cost, Schedule, Performance measure of effectiveness. The Offeror shall identify objective measures and metrics used to assess each item, the triggering event(s), the expected result of Opportunities and Risk (if risk is unmitigated) item, and the mitigation plan for each identified risk item.
- **Data Rights Assertions:** The Solution Brief shall identify any and all proprietary and/or intellectual property involved in the efforts and any associated restrictions that may possibly affect the Government's use of the property in any way whatsoever. Offeror must describe pathway to developing this into a product that can be used by the DoD and other potential customers (if applicable). Include relevant information about existing royalty agreements. See Section 2.11 for format.
- **Cost:** The Solution Brief Pitch must present summarized costs at the task level.
- **Statement of Work and Milestone Payment Schedule submission:** one Word (.docx or .doc) or PDF file. Separately, a Word (.docx or .doc) version of the SOW and MPS and a Word (.docx or .doc) are required. See Attachment A for additional information.

If desired, the Government can request additional information related to specific areas of interest to be included in the pitch. The request for such information will be provided at the end of Step 1 and at the time of invitation to advance into Step 2.

The information discussed during the pitch provides a means for the Government to engage in a discussion with the Offeror to gain a greater understanding of the Solution Brief and the Offeror's capabilities. The pitch should be restricted to **a maximum of 1 hour** with a total time of 2 hours to include questions from the Government and discussion. Any materials that will be presented during the pitch or included as supplementary material must be provided at least 72 hours prior to the meeting date. If an in-person meeting cannot be accommodated by the Offeror, then a minimum of a telephonic discussion accompanied by written support material will be required. Briefing slides or documents or a combination thereof can be used to support this effort.

*Evaluation of Step 2:* The Government will evaluate the information provided in each Offeror's Solution Brief (Step 1) and the Solution Brief Pitch (Step 2) to determine which pitch(es) provide(s) the greatest value to the Government. Such a determination will be based on the following criteria:

- Technical Approach:
  - Likelihood of successfully achieving the requirements of the technology of interest as defined in the Request for Project Proposal (RPP).
  - Extent to which the solution is technologically innovative and how the proposed deliverable advances the TRL Military relevance.
  - Extent to which the SOW provides a clear approach for meeting the project's objectives.
- Management Approach:
  - An approach to staffing, facilities and resources that will lead to the successful accomplishment of the proposed effort.
  - A team of qualified, experienced and knowledgeable staff, with the unique technical and management expertise to carry out the identified focus area, in an efficient and effective manner.
  - A realistic, achievable performance schedule with a plan to address potential risks that could delay or otherwise impact performance.
- Potential Impact of Data Rights Assertions:
  - How well the Offeror identifies intellectual property ownership and describes any appropriate intellectual and material property plan among participating organizations (if applicable).
  - How well the Offeror addresses any impact of intellectual property issues on product development.
  - Degree to which any intellectual property/data rights restrictions may possibly affect the Government's use of the property in any way whatsoever and the overall impact to the Government.

Cost: The parity of the relationship between the Offeror's solution and ROM costs.

Evaluation criteria are of equal importance.

At the conclusion of the Step 2 evaluation, Offerors who are favorably evaluated will be invited to submit a final solution brief (which may be amended from the initial brief to incorporate discussion points from the government interaction) and a cost proposal.

### ***Step 3: Cost Proposal***

The Offerors invited to submit a Cost Proposal are encouraged to contact the MTEC and/or Government with any questions so that all aspects are clearly understood by both parties. The full proposal should include the following and be completed in accordance with Section 3 of this RPP and the PPG.

- **Cost Proposal submission:** one Word (.docx or .doc) or PDF file for Section I: Cost Proposal Narrative (Appendix B) required. Separately, Section II: Cost Proposal Formats (by Task) either in Excel (.xlsx or .xls) or PDF format is required.
- **Warranties and Representations:** If Nontraditional Defense Contractor participation is proposed, Warranties and Representations are required. One Word (.docx or .doc) or PDF file that contains all Warranties and Representations is required.
- **Royalty or Additional Research Project Award Assessment:** Each Offeror will select either the MTEC Additional Assessment Fee **or** the Royalty Agreement (available on the MTEC members only website), **not both**, and submit a signed copy with the proposal.
- **Current and Pending Support (no page limit) – See Attachment B**
  - For all current and pending research support (to include government and non-government), include the award number and title, funding agency and requiring activity's names, period of performance (dates of funding), level of funding (total direct costs only), brief description of the project's goals, and list of specific aims. If applicable, identify where the proposed project overlaps with other existing and pending research projects. Clearly state if there is no overlap.
  - If there is no current and/or pending support, enter "None."
- **Data Rights:** Please reference RPP Section 2.12

### **6.2. Freedom of Information Act (FOIA)**

To request protection from FOIA disclosure as allowed by 10 U.S.C. §2371(i), Offerors shall mark business plans and technical information with a legend identifying the documents as being submitted on a confidential basis. For more information, please refer to Section 6.1.1 of the MTEC PPG.

### **6.3. Cost Proposal**

MTEC will make cost proposal formats available on the Members-Only MTEC website. **The Cost Proposal (by Task) formats provided in the MTEC PPG are mandatory.** Refer to the MTEC PPG for additional details.

Each cost should include direct costs and other necessary components as applicable, for example, fringe, General & Administrative Expense (G&A), Facilities & Administrative (F&A), Other Direct Costs (ODC), etc. Offerors shall provide a breakdown of material and ODC costs as applicable.

**6.4. Solution Brief and Cost Proposal Preparation Costs**

The cost of preparing Solution Briefs and Cost Proposals in response to this RPP is not considered a direct charge to any resulting award or any other contract.

**7 Selection**

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The CM will conduct a preliminary screening of submitted Solution Briefs to ensure compliance with the RPP requirements. Solution Briefs that do not meet these requirements may be eliminated from the competition or additional information may be requested. One of the primary reasons for non-compliance or elimination during the initial screening is the lack of significant nontraditional defense contractor participation, nonprofit research institution participation, small business participation or cost share (see RPP Section 2.11. The Cost Sharing/Nontraditional Contractor determination will be made as shown in Table 1:

TABLE 1- COST SHARING/NONTRADITIONAL CONTRACTOR ASSESSMENTS	
RATING	DESCRIPTION
PASS	Offeror proposing an MTEC research project meets at least ONE of the following: <ul style="list-style-type: none"> <li>• Offeror is a Nontraditional Defense Contractor or Nonprofit Research Institution</li> <li>• Offeror's Solution Brief has at least one Nontraditional Defense Contractor or Nonprofit Research Institute participating to a significant extent</li> <li>• All significant participants in the transaction other than the Federal Government are small businesses or Nontraditional Defense Contractors</li> <li>• Offeror provides at least one third of the total project cost as acceptable cost share</li> </ul>
FAIL	Offeror proposing an MTEC research project does <b>NOT</b> meet any of the following: <ul style="list-style-type: none"> <li>• Offeror is a Nontraditional Defense Contractor or Nonprofit Research Institution</li> </ul>

	<ul style="list-style-type: none"><li>• Offeror's Solution Brief has at least one Nontraditional Defense Contractor or Nonprofit Research Institution participating to a significant extent</li><li>• All significant participants in the transaction other than the Federal Government are small businesses or Nontraditional Defense Contractors</li><li>• Offeror provides at least one third of the total project cost as acceptable cost share</li></ul>
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Based on the results of the evaluation of the Solution Brief, the Solution Brief Pitch and Cost Proposal, Offerors may be selected for funding or not selected.

### 7.1 Best Value

The Government will conduct the source selection based on the evaluation criteria and ratings listed above. The overall award decision will be based upon a Best Value determination by considering and comparing factors in addition to cost or price. Based on the results of the Technical Approach and Feasibility Evaluation, the Government reserves the right to negotiate and request changes to any or all parts of the SOW. Offerors will have the opportunity to concur with the requested changes, proposed further changes and revise cost proposals, as necessary.

The RPP review and award process may involve the use of contractors as subject-matter-experts or reviewers; where appropriate, the U.S. Government (USG) will employ NDAs to protect information contained in the RPP as outlined in Section 2.5.

## 8 Points-of-Contact

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For inquiries, please direct your correspondence to the following contacts:

- Questions concerning contractual, cost or pricing related to this RPP should be directed to the MTEC Contracts Administrator, [mtec-contracts@ati.org](mailto:mtec-contracts@ati.org)
- Technical and membership questions should be directed to the MTEC Director of Research, Dr. Lauren Palestrini, Ph.D., [lauren.palestrini@officer.mtec-sc.org](mailto:lauren.palestrini@officer.mtec-sc.org)
- All other questions should be directed to the MTEC Director of Program Operations, Ms. Kathy Zolman, , [kathy.zolman@ati.org](mailto:kathy.zolman@ati.org)

**Once an Offeror has submitted a Solution Brief, the Government and the MTEC CM will not discuss evaluation/status until the source selection process is complete.**

## 9 Acronyms/Abbreviations

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Request for Project Proposals MTEC-20-05-IMPROVE  
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3D	Three-dimensional
ACURO	U.S. Army Animal Use and Review Office
AI	Artificial Intelligence
ATI	Advanced Technology International
CAS	Cost accounting standards
CFR	Code of Federal Regulations
CM	Consortium Manager
CMA	Consortium Member Agreement
DoD	Department of Defense
FAQ	Frequently Asked Questions
F&A	Facilities and Administrative Costs
FDA	U.S. Food and Drug Administration
FY	Fiscal Year
G&A	General and Administrative Expenses
HBM	Hospital based medicine
HRPO	Human Research Protections Office
IACUC	Institutional Animal Care and Use Committee
IP	Intellectual Property (e.g., patents, copyrights, licensing, etc.)
IRB	Institutional Review Board
IR&D	Independent Research and Development
JPC-1	Joint Program Committee-1
M	Millions
MHS	Military Health System
MPS	Milestone Payment Schedule
MTEC	Medical Technology Enterprise Consortium
MTF	Military Treatment Facility
NDA	Nondisclosure Agreement
OCI	Organizational Conflict of Interest
ODC	Other Direct Charges
ORP	Office of Research Protections, USAMRDC
OTA	Other Transaction Agreement
POC	Point-of-Contact
POI	Point of Injury (POI)
POP	Period of performance
PPG	Proposal Preparation Guide
RDA	Research, Development, and Acquisition
ROM	Rough Order of Magnitude
RPP	Request for Project Proposals
SOW	Statement of Work
TCCC	Tactical Combat Casualty Care
USAMRDC	U.S. Army Medical Research and Development Command
USG	U.S. Government, specifically the DoD

## **Attachment A: Statement of Work (SOW)**

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The SOW developed by the Lead MTEC member organization is intended to be incorporated into a binding agreement if the Solutions Brief is selected for award. If no SOW is submitted, there will be no award. The proposed SOW shall contain a summary description of the technical methodology as well as the task description, but not in so much detail as to make the contract inflexible. DO NOT INCLUDE ANY PROPRIETARY INFORMATION OR COMPANY-SENSITIVE INFORMATION IN THE SOW TEXT. The following is the required format for the SOW.

### **Statement of Work**

**Submitted under Request for Project Proposal** (*Insert current Request No.*)

**(Proposed Project Title)**

**Introduction/Background** (*To be provided initially by the Offeror at the time of submission. Submitted information is subject to change through negotiation if the Government selects for funding.*)

**Scope/Project Objective** (*To be provided initially by the Offeror at the time of submission. Submitted information is subject to change through negotiation if the Government selects for funding.*)

This section includes a statement of what the project covers. This should include the technology area to be investigated, the objectives/goals, and major milestones for the effort.

**Requirements** (*To be provided initially by the Offeror at the time of submission to be finalized by the Government based on negotiation of Scope/Project Objective.*)

State the technology objective in the first paragraph and follow with delineated tasks required to meet the overall project goals. The work effort should be segregated into major phases, then tasks and identified in separately numbered paragraphs (similar to the numbered breakdown of these paragraphs). Early phases in which the performance definition is known shall be detailed by subtask with defined work to be performed. Planned incrementally funded phases will require broader, more flexible tasks that are priced up front, and adjusted as required during execution and/or requested by the Government to obtain a technical solution. Tasks will need to track with established adjustable cost or fixed price milestones for payment schedule. Each major task included in the SOW should be priced separately in the Cost Proposal. Subtasks need not be priced separately in the Cost Proposal.

**Deliverables** (*To be provided initially by the Offeror at the time of submission. Submitted information is subject to change through negotiation if the Government selects for funding.*)

Results of the technical effort are contractually binding and shall be identified herein. Offerors are advised to read the Base Agreement carefully. Any and all hardware/software to be provided to the Government as a result of this project shall be identified. Deliverables should be submitted in PDF or MS Office format. It must be clear what information will be included in a deliverable either through a descriptive title or elaborating text.

**Milestone Payment Schedule** *(To be provided initially by the Offeror at the time of submission. Submitted information is subject to change through negotiation if the Government selects for funding. The milestone schedule included should be in editable format (i.e., not a picture))*

The Milestone Payment Schedule should include all milestone deliverables that are intended to be delivered as part of the project, a planned submission date, the monetary value for that deliverable and any cost share, if applicable. For fixed price agreements, when each milestone is submitted, the MTEC member will submit an invoice for the exact amount listed on the milestone payment schedule. For cost reimbursable agreements, the MTEC member is required to assign a monetary value to each milestone. In this case, however, invoice totals are based on cost incurred and will not have to match exactly to the amounts listed on the milestone payment schedule.

The milestones and associated deliverables proposed should, in general:

- be commensurate in number to the size and duration of the project (i.e., a \$5M multi-year project may have 20, while a \$700K shorter term project may have only 6);
- not be structured such that multiple deliverables that might be submitted separately are included under a single milestone;
- be of sufficient monetary value to warrant generation of a deliverable and any associated invoices;
- include at a minimum Quarterly Reports which include both Technical Status and Business Status Reports (due the 20th of Mar, Jun, Sep, Dec), Annual Technical Report, Final Technical Report, and Final Business Status Report. Reports shall have no funding associated with them.

Milestone No.	Significant Event/Accomplishments Description of Deliverables	Due Date	Total Program Funds	Total Cost Share
1				
2				
3				
<b>Total</b>				

**Shipping Provisions** *(The following information, if applicable to the negotiated SOW, will be finalized by the Government and the MTEC Consortium Manager based on negotiations)*

- The shipping address is:

Classified Shipments:  
Outer Packaging  
Inner Packaging

**Reporting** *(The following information, if applicable to the negotiated SOW, will be provided by the Government based on negotiation)*

- Quarterly Reports – The MTEC research project awardee shall submit a Quarterly Report which will include a Technical Status Report and a Business Status Report in accordance with the terms and conditions of the Base Agreement. (Required)
- Annual Technical Report – The project awardee shall submit an Annual Technical Report for projects whose periods of performances are greater than one year in accordance with the terms and conditions of the Base Agreement. (Required)
- Final Technical Report – At the completion of the Research Project Award, the awardee will submit a Final Technical Report, which will provide a comprehensive, cumulative, and substantive summary of the progress and significant accomplishments achieved during the total period of the Project effort in accordance with the terms and conditions of the Base Agreement. (Required)
- Final Business Status Report – At the completion of the Research Project Award, the awardee will submit a Final Business Status Report, which will provide summarized details of the resource status of the Research Project Award, in accordance with the terms and conditions of the Base Agreement. (Required)

**Attachment B: Rough Order of Magnitude (ROM) Pricing**

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Sufficient cost information to substantiate the proposed cost as realistic and reasonable for the proposed effort must be provided to ensure that a complete and fair evaluation of the cost or price can be conducted. **Use the example table format and template below to provide an initial ROM.** The labor, travel, material costs, other direct costs, and indirect costs, information should be entered for Offeror (project prime) only. Subcontractors and/or consultants should be included only in the “Subcontractor” section of the table.

<b>Labor</b>	<i>\$ 100,000.00</i>
<b>Labor Hours</b>	<i>1,000.0 hrs</i>
<b>Subcontractors</b>	<i>\$ 50,000.00</i>
<b>Subcontractors Hours</b>	<i>500.0 hrs</i>
<b>Consultants</b>	<i>\$ 10,000.00</i>
<b>Consultants Hours</b>	<i>100.0 hrs</i>
<b>Material/Equipment</b>	<i>\$ 75,000.00</i>
<b>Other Direct Costs</b>	<i>\$ 1,000.00</i>
<b>Travel</b>	<i>\$ 5,000.00</i>
<b>Indirect costs</b>	<i>\$ 48,200.00</i>
<b>Total Cost</b>	<i>\$ 289,200.00</i>
<b>Fee</b> <i>(Not applicable if cost share is proposed)</i>	<i>\$ 0.00</i>
<b>Total Cost (plus Fee)</b>	<i>\$ 289,200.00</i>
<b>Cost Share</b> <b>(if cost share is proposed then fee is unallowable)</b>	<i>\$ 290,000.00</i>
<b>Total Project Cost</b>	<i>\$ 579,200.00</i>

**Attachment C: Data Rights**

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The Offeror shall comply with the terms and conditions defined in the Base Agreement regarding Data Rights.

It is anticipated that anything delivered under this proposed effort would be delivered to the Government with Government purpose data rights or unlimited data rights. If this is not the intent, then the proposal should discuss data rights associated with each item, and possible approaches for the Government to gain Government purpose data rights or unlimited data rights as referenced in the Base Agreement. Rights in technical data in each Research Project Award shall be determined in accordance with the provisions of MTEC Base Agreement.

If applicable, complete the below table for any items to be furnished to the Government with restrictions. An example is provided.

<b>Technical Data or Computer Software to be Furnished with Restrictions</b>	<b>Basis for Assertion</b>	<b>Asserted Rights Category</b>	<b>Name of Organization Asserting Restrictions</b>	<b>Milestone # Affected</b>
Software XYZ	Previously developed software funded exclusively at private expense	Restricted	Organization XYZ	Milestones 1, 3, and 6
Technical Data Description	Previously developed exclusively at private expense	Limited	Organization XYZ	Milestone 2
Technical Data Description	Previously developed with mixed funding	Government Purpose Rights	Organization XYZ	Milestone 2