

The elements of a good proposal in response to a BTI RFP

General

- There are three types of review criteria:
 - scientific quality
 - mission relevance/operational contribution
 - administrative compliance

Capability Gap

- State explicitly the problem this proposal intends to address
- You may refer to RFP or DHS component strategic plans to explain:
 - Why is this topic a priority and timely to address this research now ?
 - What are the negative impacts if the challenges go unmet?
 - What are the consequences if solutions are delayed?
- What are the expected new capabilities?

Goal and Objectives

- Description of the main goal of this project in response to the identified capability gap
- Describe the specific objectives in support of this goal
- Identify the unique contributions of the proposal
- Specify why the desired objectives and outcomes are necessary in the context of the stated research question(s)

Methodology

- Description of how the project objectives will be accomplished. What is the scientific novelty of the approach?
- Use sound science. Include:
 - any data collection methods and their properties
 - sample sizes and their justification (e.g., power analyses)
 - algorithmic data processing methods
 - data analyses and evaluation
 - dissemination plans as appropriate

Tasks

- Tasks should describe how work will progress and how its key objectives will be fulfilled and evaluated.
- Show who is responsible for each task and when they will be completed.
- Articulate overall project planning and management
- Tasks should include quarterly contact with BTI for progress review (including the annual PI meeting)
- Tasks should be reported in intervals of no longer than 3 months.
- Tasks listings can include a start date in addition to the end date (both as months past project start date)
- Sound Scientific Methodology
- Include evaluation activities
- All tasks should be associated to milestones or deliverables

Champions

- Champions are assigned by OUP, and performers should not attempt to identify Champions on their own
- Performers are encouraged to use teleconferencing tools to meet with their Champions instead of budgeting for in person travel.

Milestones

- Milestones should be construed as a major completion of activity
- For example, collecting data and cleaning it up for use in analysis entails specific tasks:
 - data collection,
 - data annotation,
 - noise removal,
- The milestone should be the culmination of these tasks in a curated dataset/database, not all the specific tasks.
- Milestones should be reported no less than every 6 months
- Milestone listings should report expected dates of completion in months past months past project start date

Types of Deliverables

- State clearly and succinctly the types of deliverables (outputs) that will be produced. Describe specific and meaningful deliverables.
- Specify why these outcomes are necessary in the context of the work plan.
- Include the following items as part of your deliverables:
 - Journal Publications
 - Conference Publications
- Do you foresee that your deliverables will require the use of a third-party technology or product? Please specify yes or no
- Reported no less than every 6 months
- Deliverable listings should report expected dates of completion in months past months past project start date
- All tasks resulting in tangible artifacts should be associated to deliverables

Types of Deliverables

Other potential deliverables include:

- Survey; Validated Instrument
- Algorithm; method; CONOPS
- Protocol + Datasets; Database + Visualization
- Software; Compiled Program
- Sensors; Hardware Prototype
- Brief; Report; List of questions that need to be answered; Lessons learned;
- Economic analysis; Policy document; Memorandum
- Educational activity; Curriculum

Performance Metrics

- Measures to **quantify** project success
- They should compare the results of the present method against state of the art methods
- In the absence of prior art, the present method will be the baseline, and thus no comparisons can be run
 - Measure desirable properties of a single distribution (e.g., minimal variance)

Performance Metrics (2)

- In pilot studies
 - Run statistical tests on distributions that hold at least 30 measurements from a representative sample
- In major studies
 - Use power analysis
- In comparisons, the new method should be significantly better than the state of the art ($\alpha = 0.05$)
- If multiple comparisons, then apply alpha correction

Notional Transition Plan

- Description of transition plans and activities.
- How will you get your final product to the target end users in a useable, customer-friendly manner that ensures it is put to use immediately?
- Do you have any existing IP that this project will utilize?
- Transition efforts should be proactive, not passive.
- Describe activities that would be helpful to get the information to DHS users, and integrate with impact.
- A conference is considered passive dissemination, as most practitioners have travel constraints.

Notional Transition Plan

1. Who is/are the end user(s) of proposed deliverables? (An end user is not necessarily the project champion or a customer at DHS HQ – it could be an agent on the field)
2. For each user, consider the use case(s) that outline the use of developed deliverable.
3. For each use case, consider how to address the following:
 - 3.a What are the functional requirements for the proposed deliverable (will it be used as a stand-alone? Does it have to be integrated with other systems? If so, please specify integration requirements.)
 - 3.b What are the requirements for the development of proposed deliverable (as defined by each end-user)?
 - 3.c What improvement in use of the proposed technologies will be necessary for end-user adoption?
 - 3.d Are there any dependencies that would be required for the end-user to use the developed solution?
 - 3.e Are any dependencies that would require licensing or purchases for user by end- user?
 - 3.f Are there alternate technologies/knowledge products that could address the requirements for solving the problem? What are their limitations?

Risk and mitigation plans

- Description of all potential programmatic risks that may impact project completion
- Plans to mitigate those risks

Travel

- Include estimated travel costs to attend the BTI Annual Meeting (Washington D.C. area, Fall timeframe, up to two nights). Budget should include travel, meals and lodging for the PI and a student (if applicable).
- If the proposal includes subaward(s) to other organizations(s), the same travel rules apply to each subaward. In particular, travel must be included for each subcontract PI and student (if applicable).
- This is an important venue to justify the continuation of a project, as the DHS PM and stakeholders are present. Meeting to be held annually in the Fall in the Washington, DC area.

Data Acquisition Plan

- The requirement for a data acquisition plan arises out of considerations of licensing/availability issues, not cost concerns
- Does the project need access to data already collected by a third party? I.e., the PI will NOT be the owner of ALL the data to be used in the project?
 - If yes, but the data is in the public domain: This needs to be explicitly stated in the workplan, and also that there are no restrictions/licensing agreements needed to access and use it.
 - In all other cases, the work plan needs to be accompanied by a Data Acquisition Plan.
- The work plan should not abstractly rely on Government assistance to locate and/or provide data

Data Acquisition Plan (2)

- The plan does not need to be a long document, as long as it addresses the following:
 - Third party Data to be used in the project
 - Purpose and characteristics of the data
 - Uses of the data
 - Data source and Acquisition method
 - Data safety plan
 - Data disposal/retention plan
 - Signed commitment letters from data owners
- A copy of a data license agreement would satisfy the provision to include a Data owner's commitment letter. Said license agreement would also probably detail the additional information needed in the plan.

NO Sensitive Data Allowed

- All research conducted through BTI is intended to have publicly releasable results.
- Accordingly, no research under this Award should involve, use, or generate sensitive information
- This restriction includes For Official Use Only (FOUO), Personally Identifiable Information (PII), and/or classified information

Human Subjects Research

- Outline IRB plans
- Include the protocol that will be submitted to IRB for review