
BAA 05-28 PROPOSER INFORMATION PAMPHLET

The Defense Advanced Research Projects Agency (DARPA) often selects research efforts through Broad Agency Announcements (BAAs). The following information is for those wishing to respond to the following BAA appearing on the FedBizOpps web site:

**GLOBAL AUTONOMOUS LANGUAGE EXPLOITATION (GALE);
SOL: BAA 05-28; PROPOSALS DUE: Initial Closing: 2 May 2005, Final
Closing: 16 March 2006; BIDDER'S CONFERENCE: 6 April 2005; POC:
JOSEPH P. OLIVE, DARPA/IPTO; QUERIES: BAA05-28@DARPA.MIL**

1. INTRODUCTION

DARPA seeks strong, responsive proposals from well-qualified sources for a new Human Language Technology (HLT) research and development program called GALE (Global Autonomous Language Exploitation) with the goal of eliminating the need for linguists and analysts and automatically providing relevant, distilled actionable information to military command and personnel in a timely fashion.

The United States has a compelling need for reliable information affecting military command, soldiers in the field and national security. Currently, volumes of raw data are gathered from around the globe in many languages and media (speech and text). Given the quantity of data it is difficult to find and interpret the salient pieces of information.

The goal of the GALE program is to develop and apply computer software technologies to absorb, analyze and interpret huge volumes of speech and text in multiple languages. Automatic processing "engines" will convert and distill the data, delivering pertinent, consolidated information in easy-to-understand forms to military personnel and monolingual English-speaking analysts in response to direct or implicit requests.

DARPA wishes to broaden the pool of potential performers to include organizations that have not previously participated in DARPA Human Language Technology research efforts plus experts from a wide range of disciplines.

Individuals and organizations that have not participated in DARPA Human Language Technology work are particularly encouraged to join multi-site teams.

Framed boxes in this document include pointers to highly relevant documents.

GALE will consist of three major engines: Transcription, Translation and Distillation. The output of each engine is English text. Each engine will be self-contained, but may have inputs other than the source data such as dictionaries, topics, names, entities, etc. Engines will pass along pointers to relevant source language data that will be available to humans and downstream processes. Military personnel will interact with the distillation engine via interfaces that could include various forms of human-machine dialogue (not necessarily in natural language).

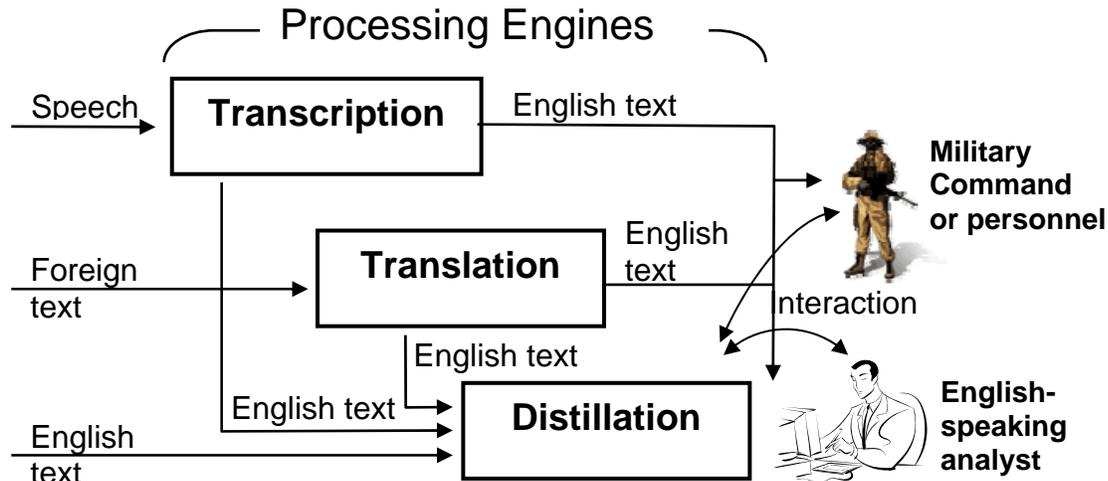


Figure 1 – Processing Engines (For simplicity, inputs to each engines from data bases, etc are not shown)

To facilitate engine interconnection and application implementation, one program task will be to develop a flexible Language Exploitation Environment (LEE). The LEE will include well-defined interfaces and control software for interconnecting the major processing modules (Transcription and Distillation or Translation and Distillation) and input data bases in GALE.

As successful technologies emerge, proposers of insertion projects will include them in a series of carefully selected operational applications. The goal is to get functional technologies into the hands of users quickly. Other programs and agencies may enhance and modify the emerging GALE technology to suit their needs and incorporate it into their operating environments.

Engines must be able to process naturally-occurring speech and text of *all* the following types:

- Broadcast news (radio, television)
- Talk shows (studio, call-in)
- Newswire
- Newsgroups
- Weblogs
- Telephone conversations

The source languages will be English, Chinese and Arabic plus surprise languages to be announced later.

Engines must be

- Robust, scalable, portable
- Able to deal with the full range of source data described above
- Adaptable to different media and languages (not point solutions specialized to particular media and languages)
- domain independent
- Substantially language independent

DARPA's desired end result includes

- A transcription engine that produces English transcripts with 95% accuracy
- A translation engine producing English text with 95% accuracy
- A distillation engine able to fill knowledge bases with key facts and to deliver useful information as proficiently as humans can.

Technical approaches may take many forms and may affect every aspect of the technology. The GALE program will not include predetermined phases. Each offeror is asked to propose its own set of Go/No-Gos on the path to achieving the program's accuracy targets (except for the first set of targets for the transcription and translation projects) as specified in sections 2.2-2.4. This includes the length of time required by the offeror to get to each Go/No-Go as well as the accuracy level to be achieved at each Go/No-Go. Individual proposals will be evaluated on their scientific merit as well as on their Go/No-Go-based plan to achieve the desired program goals. Achieving the proposed accuracy goals at the end of each of the offeror's Go/No-Go phases is only a necessary condition for continuing. Analysis showing that the technique has the growth potential to meet the ultimate goal is also required. Even here, DARPA may still eliminate the lowest performing effort.

NIST will develop a new set of tests for GALE and conduct rigorous, objective performance evaluations that measure the accuracy of engine outputs. Examples of past evaluations for other programs can be found at:

<http://www.nist.gov/speech/tests/summaries/index04.htm>

Some of the data needed by GALE is already available from the Linguistic Data Consortium, [ldc@ldc.upenn.edu](http://ldc.upenn.edu). This data is described more fully at:

<http://www.ldc.upenn.edu/Projects/GALE/>
<http://www.ldc.upenn.edu/Projects/GALE/Data>

Other data sought as part of this BAA will become available as the program proceeds.

TERMINOLOGY

Speech	Audio signal (digital waveform)
Text	Ordinary text (in machine readable form) or automatically transcribed speech
Document	For text, an individual newswire story or comparable unit of text; for speech, an entire conversation or show
English Text	Text (including automatically transcribed speech) that was originally in English or that was translated into English
Source Language	Language in which the speech or text originated
Processing Engine	Software-based system to convert or to distill speech or text in any of several specified ways
Knowledge Base	Structured information extracted from text
User Interface	Software by which users and engines interact
API	Application Programming Interface
Insertion	Transition of technology into a particular operational use
Team	Prime contractor plus 0 or more subcontractors
Task	Meaningful portion of a proposal

2. PROPOSALS SOUGHT

This BAA seeks proposals that address the following areas:

1. A Language Exploitation Environment (LEE)
2. Transcription Engines
3. Translation Engines
4. Distillation Engines
5. Linguistic Data
6. Utility Evaluations
7. Technology Insertion Projects into Military Applications

Offerors may propose work in any or all of the areas addressed in this BAA.

The heart of the GALE program will be the aggressive development of powerful language processing engines. These have the harshest demands and will receive the majority of the funding.

2.1 Language Exploitation Environment

To facilitate the interconnection of processing engines and facilitate application development, DARPA intends to employ a common Language Exploitation Environment (called the LEE).

LEE will include well-defined interfaces and control software for interconnecting the major processing modules in GALE and user interfaces. Proposals are sought for developing and refining the LEE architecture and interface specifications, control software and associated general purpose tools.

Proposals must include:

- Detailed definitions of the proposed architecture, interface specifications, control software and associated tools
- A process for refining those definitions and integrating feedback from all GALE participants during the first six months of the program
- A process for producing working versions of the API and essential I/O tools within the first nine months of the program
- Continuing enhancement and support for the LEE

Proposed approaches must be easy to use, scalable and extensible.

Participants will help the government and the LEE contractor(s) determine the exact content and format of GALE standard inputs and outputs.

2.2 Transcription Engine

A transcription engine converts speech to English text.

Inputs are in the form of audio signals. Outputs consist of the highest likelihood transcription in English (with proper capitalization and punctuation), plus a lattice of alternate transcriptions (with transcription confidence measures).

Proposals to develop transcription engines must describe the means to produce the transcriptions. If the source language is not English, see additional instructions in section 2.3.

Transcription engines will be evaluated on broadcast news and talk shows. Accuracy will be measured by word error rate (where capitalization and punctuation errors are treated as word errors). The offeror's first phase performance target for foreign language speech must be no less than 65% accuracy and the final target performance must be at least 95% accuracy.

2.3 Translation Engine

A translation engine converts other languages into accurate, readable English. A translation engine also annotates the translations with information useful to downstream processors most readily obtained from source language data. Annotations may include but are not limited to languages, genres, topics, names, cases, parts of speech, parse structures, etc.

Inputs are non-English text. Outputs consist of the highest likelihood translation (with proper capitalization and punctuation), a lattice of alternate translations (with translation confidence measures), and annotations (with appropriate confidence measures).

Proposals to develop translation engines must describe the means to produce the translations, the proposed annotations and the means for producing them. Proposals must also explain how distillation engines could use each of the proposed annotations.

Translation engines will be evaluated by translation accuracy. Translation accuracy is defined as the number of deletions, insertions and substitutions (including phrase placement substitutions) by a human editor necessary to make the machine translation readable, and to convey the proper meaning of the source text. The offeror's first phase performance target must be no less than 75% accuracy and the final target performance must be at least 95% accuracy. Performers must provide both the lattice and annotation output in order to be eligible for the evaluation.

2.4 Distillation Engine

A distillation engine integrates information of interest to its user from multiple sources and documents. The engine may

- gather all documents relevant to a specific query
- identify various kinds of new information
- produce structured information from unstructured text, discovered entities, relations, and events to populate knowledge bases
- gather fragmented information, discarding repetition, and indicating contradictions and changes over time

thereby drastically reducing the volume of presented information while retaining important content.

The current Automatic Content Extraction (ACE) tasks for producing structured information are described at:

<http://www.nist.gov/speech/tests/summaries/index04.htm>

and may be modified early in the GALE program. Ideas for these modifications should be spelled out in the proposals.

Distillation engines will include mechanisms for obtaining explicit and implicit guidance as to the interest of the users in a form of query and/or

users' profiles. Inputs to the distillation engines are English text (including transcription and translation lattices and translation annotations as appropriate). Outputs may be:

1. A list of relevant documents,
2. Normalized, disambiguated knowledge base entries (with associated confidence measures) plus pointers to the original and translated text,
3. Presentation of relevant or novel information in efficient, easy-to-grasp forms that eliminates repetitions and indicates contradictions and changes over time. These may include hyperlinked multimedia information but not necessarily text.

Proposals to develop distillation engines must describe the proposed outputs plus the means for producing them. They must also describe the proposed human-machine interfaces and methods for accepting or discerning user interests and queries.

Distillation engines will be evaluated differently depending on their outputs. For a list of relevant documents the target will be 95% recall with 90% precision. Presentations of important information in efficient, easy-to-grasp forms will be tested and compared to human output and be expected to equal human output (produced with time restrictions).

2.5 Linguistic Data

Large quantities of data, organized and annotated in appropriate ways, are needed for effective research, algorithm development and performance evaluation.

The desired data may include (but is not limited to):

- Large quantities of naturally occurring speech and text from multiple sources, genres, and languages (of the types described above)
- Annotated versions of portions of that data
- Lexical resources of various kinds

The data must respect the privacy expectations of the writers and speakers and be freely distributable to researchers.

Proposals are sought for efforts to provide such data and may include the development of associated access tools. The proposals should indicate what data and tools the offerors believe will be needed, explain how the proposal satisfies those needs, and state how these tools will respond to the evolving needs of the program.

As GALE proceeds, successful bidders will work with DARPA and other program participants to determine exactly what data is needed, in what quantities and formats, and according to what schedules.

2.6 Utility Evaluation

DARPA seeks proposals for methods to evaluate the operational utility (impact) of processing engines (alone or in combination with one another). The utility evaluations will complement the engine accuracy evaluations led by NIST. The evaluations could involve simulated applications and measure current and future capabilities.

2.7 Insertion Projects

DARPA wishes to insert advanced technology in real DoD applications as quickly as possible to obtain a rapid return on investment, learn how well things work and gain insights to help guide research. DARPA envisions a series of (overlapping) projects.

Proposals are sought that include creative insertion projects, where each project:

- Identifies and involves collaboration with the government customer
- Serves an important national security need
- Uses the best available technology

In the event better technology has been developed by other entities, proposals should include funding for suitable subcontracts. Proposals must also detail integration and hardening strategies to incorporate these technologies.

Since high-value applications will change over time and processing engines will continually improve, DARPA will entertain insertion project proposals on a continuing basis throughout the GALE program.

3. ADDITIONAL INFORMATION

3.1 Number and Size of Awards

DARPA anticipates making several awards in each of the areas described above. The actual number of awards will depend on the substance and aggressiveness of the proposals.

DARPA strongly encourages teaming.

3.2 Duration

Offerors are asked to specify the duration of each phase of their project and accuracy targets for each of the phases, except for the transcription and translation engines projects, where phase 1's target must be at least 65% from speech and 75% from text and the final phase's target for both must be at least

95%. Proposal evaluation will strongly consider phase duration and accuracy targets. The duration of each phase is left to the proposer but will be considered in the evaluation.

3.3 Teams

Offerors are encouraged to form strong, multi-site, multidisciplinary teams. The goal of teaming is to achieve faster, stronger progress through critical mass efforts.

Each team, consisting of a prime contractor and an appropriate mix of subcontractors, should submit a single, unified proposal. (For simplicity, this document uses the term "team" even when there are no subcontractors.)

To facilitate team formation, a web site has been established. Groups or individuals wishing to advertise for GALE partners may use the bulletin board at http://www.dyncorp-is.com/baa/baa_05-28_Teaming.htm.

3.4 Tasks

Within a proposal, offerors must divide the proposed work into distinct, separately priced tasks. In assembling a balanced, high quality program, the government may choose to fund some tasks and not others.

4. MISCELLANEOUS

4.1 Capabilities of Offerors

Offerors are expected to possess substantial experience with the technical problems being addressed plus state-of-the-art technology upon which to build. This can be proven by participation in appropriate NIST-sponsored benchmark tests.

Recent tests are described at:

<http://www.nist.gov/speech/tests/summaries/index04.htm>

If no participant in a team has participated in the relevant test(s), or if a re-test is desired, NIST will be happy to assist. Please contact the appropriate person indicated on the NIST website as soon as possible to work out the necessary arrangements.

Individuals or organizations who could make valuable contributions to GALE research, but who have not run and cannot run a test in time are encouraged to

join a team that has these NIST-approved test capabilities. Outstanding individuals from other fields are encouraged to participate in this way.

4.2 Collaboration

In order to help the program make maximum progress, contractors must share detailed technical information about any techniques that they develop or use with other contractors. (They may first file patent applications, provided they do so promptly and follow the procedures set forth in FAR section 27.)

Contractors will be expected to participate in various technical exchanges and coordination and planning activities with DARPA and other participants. For budgetary purposes, sites should plan on sending representatives to one 3-day GALE workshop plus a minimum of five 1-day meetings every year. These will be in addition to whatever travel is needed for collaboration within a research team.

4.3 Deliverables

Contractors must submit Quarterly Status Reports and Annual Project Summary Reports as specified by DARPA.

If requested to do so, contractors doing algorithmic research must provide detailed technical descriptions of the algorithms that they are developing as part of this program.

Offerors are encouraged to identify data and software components (including source code) that they would be willing to make available to other sites to help the overall program succeed.

4.4 Schedule

There will be a Bidders' Conference on April 6, 2005. Details may be found at <http://www.darpa.mil/ipto/solicitations/solicitations.htm> under BAA05-28.

The initial round of awards will be based on proposals received by the 2 May 2005 deadline specified below.

5. SUBMITTING PROPOSALS

5.1 GENERAL INFORMATION

This solicitation is not related to any specific application, system or hardware procurement. Rather, it is for efforts that will significantly advance the state of the art.

The notice published in the Government-wide point of entry, in conjunction with this Proposer Information Pamphlet (PIP) and all references, constitutes the total BAA. No additional information is available, nor will a formal Request for Proposal (RFP) or other solicitation regarding this announcement be issued. Requests for same will be disregarded.

All responsible sources capable of satisfying the Government's needs may submit proposals that shall be considered by DARPA. Small Disadvantaged Businesses, Historically Black Colleges and Universities (HBCUs) and Minority Institutions (MIs) are encouraged to submit proposals and join others in submitting proposals. However, no portion of this BAA will be set aside for Small Disadvantaged Business, HBCU and MI participation due to the impracticality of reserving discrete or severable areas of this research for exclusive competition among these entities.

Proposals selected for funding are required to comply with provisions of the Common Rule (32 CFR 219) on the protection of human subjects in research (<http://www.dtic.mil/biosys/downloads/32cfr219.pdf>) and the Department of Defense Directive 3216.2 (<http://www.dtic.mil/whs/directives/corres/html2/d32162x.htm>). All proposals that involve the use of human subjects are required to include documentation of their ability to follow Federal guidelines for the protection of human subjects. This includes, but is not limited to, protocol approval mechanisms, approved Institutional Review Boards, and Federal Wide Assurances. These requirements are based on expected human use issues sometime during the entire length of the proposed effort.

For proposals involving “greater than minimal risk” to human subjects within the first year of the project, performers must provide evidence of protocol submission to a federally approved IRB *at the time of final proposal submission to DARPA*. For proposals that are forecasted to involve “greater than minimal risk” after the first year, a discussion on how and when the proposer will comply with submission to a federally approved IRB needs to be provided in the submission. More information on applicable federal regulations can be found at the Department of Health and Human Services – Office of Human Research Protections website (<http://www.dhhs.gov/ohrp/>).

DARPA has determined that the scope of the work for this program is not fundamental research. Therefore, all performers (industry and universities) are subject to the policy that information intended for public release developed as part of any contract awarded against this BAA must adhere to DARPA’s Public Release Policy and Procedures, which are

available at <http://www.darpa.mil.tio>." Prime and subcontracts shall include DFARS clause 252.204-7000, Disclosure of Information.

5.2 PROPOSAL SUBMISSION PROCESS

Offerors must obtain a **BAA Cover Sheet** for each proposal by following the instructions at <http://www.dyncorp-is.com/BAA/index.asp?BAAd=05-xx>

The proposer must then print the **BAA Confirmation Sheet** that appears automatically on the web page and submit it attached to the front of each copy of the proposal.

Failure to comply with these procedures may result in the submission not being evaluated.

Proposers must submit an original and 2 paper copies of the full proposal plus 2 electronic copies (e.g., 2 separate disks) of the same in Microsoft Word or PDF.

Each electronic copy must be clearly labeled with BAA 05-28, proposer organization, proposal title (short title recommended) and Copy ___ of 2. Proposals **MUST NOT** be submitted by fax or e-mail; any so sent will be disregarded.

The full proposal (original and designated number of hard and electronic copies) must be submitted to the administrative address for this BAA in time to reach DARPA by **12:00 PM Noon (ET), Monday, May 2, 2005**, in order to be considered during the initial evaluation phase. DARPA will acknowledge receipt of submissions and assign control numbers to be used in all further correspondence.

The BAA will remain open until 12:00 Noon (ET), March 16, 2006. Proposals submitted after the May 2, 2005 deadline will be considered, but the likelihood of their being funded is far less than for proposals submitted in accordance with the initial evaluation and award schedule.

5.3 EVALUATION AND FUNDING PROCESSES

Each proposal will be evaluated through a scientific review against the following criteria, which are listed in descending order of relative importance:

- (1) Overall Scientific and Technical Merit: The overall scientific and technical merit must be clearly identifiable. The technical concept should be clearly defined and developed. Emphasis should be placed on the technical value of the development and experimentation approach.
- (2) Phase Duration and Targets: The phase target Go/No-Go's must be in line with accuracy goals for GALE that are stated in sections 2.2-2.4. The time to reach Phase 1 and the other Phase durations need to be consistent with the technical approach and requested funding and will be a strong part of the evaluation.
- (3) Utility Assessment: The offeror must clearly address how the proposed effort will meet requirements for utilization by military personnel. This is further indicated by the offeror's understanding of the operating environment of and the demands from the capability to be developed.
- (4) Offeror's Capabilities and Related Experience: The qualifications, capabilities, and demonstrated achievements of the proposed principals and other key personnel for the primary and subcontractor organizations must be clearly shown.
- (5) Plans and Capability to Accomplish Technology Transition: The offeror should provide a clear explanation of how the technologies to be developed will be transitioned to capabilities for Government use. Technology transition should be a major consideration in the design of experiments, particularly considering the potential for involving potential transition organizations in the experimentation process. The plan on how offeror intends to get developed technology and information to the user community will be considered.
- (6) Cost Realism: The overall estimated cost to accomplish the effort should be clearly shown as well as the substantiation of the costs for the technical complexity described. Evaluation will consider the value to Government of the research and the extent to which the proposed management plan will effectively allocate resources to achieve the capabilities proposed.

Proposals will not be evaluated against each other, since they are not submitted in accordance with a common work statement. For evaluation purposes, a proposal is the document described in PROPOSAL FORMAT Section I and Section II (see below).

Restrictive notices notwithstanding, proposals may be handled for administrative purposes by support contractors. These support contractors are prohibited from competition in DARPA technical research and are bound by appropriate non-disclosure requirements. Input on technical aspects of the proposals may be solicited by DARPA from non-Government consultants /experts who are also bound by appropriate non-disclosure requirements. However, non-Government

technical consultants/experts will not have access to proposals that are labeled by their offerors as “Government Only”. Use of non-government personnel is covered in FAR 37.203(d).

The Government reserves the right to select all, some, or none of the proposals received in response to this solicitation and to make awards without discussions with offerors; however, the Government reserves the right to conduct discussions if the Source Selection Authority later determines them to be necessary. Proposals identified for funding may result in a contract, grant, cooperative agreement, or other transaction depending upon the nature of the work proposed, the required degree of interaction between parties, and other factors. If warranted, portions of resulting awards may be segregated into pre-priced options.

The Award Document for each proposal selected and funded will contain a mandatory requirement for submission of DARPA/IPTO Quarterly Status Reports and an Annual Project Summary Report. These reports, described below, will be electronically submitted by each awardee under this BAA via the DARPA/IPTO Technical – Financial Information Management System (T-FIMS). The T-FIMS URL will be furnished by the government upon award. Detailed data requirements can be found in the Data Item Description (DID) DI-MISC-81612A available on the Government’s ASSIST database (<http://assist.daps.dla.mil/quicksearch/>).

6. PROPOSAL FORMAT

PROPOSALS THAT DO NOT COMPLY WITH THE FOLLOWING REQUIREMENTS MAY BE REJECTED WITHOUT REVIEW.

Proposals shall include the following sections, each starting on a new page and with text on one side only. Each page must be letter size (8-1/2 by 11 inches) with type not smaller than 12 point (except in illustrations). Maximum page lengths for each section are given in braces { } below.

Section I. Administrative

{1} Cover Sheet. Described above under "Submission Process".

{1} Cover Page. (1) BAA number; (2) Type of proposal (one of: “LANGUAGE EXPLOITATION ENVIRONMENT,” “TRANSCRIPTION ENGINE,” “TRANSLATION ENGINE,” “DISTILLATION ENGINE,” “LINGUISTIC DATA,” “UTILITY EVALUATION,” “INSERTION PROJECT,” “OTHER”); (3) Title of proposal; (4) Identity of prime contractor and key subcontractors if any; (5) Technical point of contact (including: name, telephone number, electronic mail address, fax number if any, and mailing address); (6) Administrative point of contact (including name, telephone number, electronic mail address, fax number if any, and mailing address); (7) Total cost to the government of the proposed work during each 12-month period (counting from

the date of award) plus cost sharing information if relevant; and (8) Contractor's type of business (selected from the following categories: "WOMEN-OWNED LARGE BUSINESS," "OTHER LARGE BUSINESS," "SMALL DISADVANTAGED BUSINESS [Identify ethnic group from among the following: Asian-Indian American, Asian-Pacific American, Black American, Hispanic American, Native American, or Other]," "WOMEN-OWNED SMALL BUSINESS," "OTHER SMALL BUSINESS," "HBCU," "MI," "OTHER EDUCATIONAL," "OTHER NONPROFIT", or "FOREIGN CONCERN/ENTITY").

Section II. Detailed Proposal Information

This section provides the detailed discussion of the proposed work necessary to enable an in-depth review of the specific technical and managerial issues. Entries should be clear and succinct. They do NOT need to fill all of the space allowed.

- A. {5} Executive Summary.
- B. {1} Innovative Claims. Concise summary of the most important innovations.
- C. {5} Statement of Work. General statement in plain English encompassing all of the proposed tasks and flexible enough to last for the duration of the program. In third person (e.g., "The contractor will...") suitable for inclusion in a contract.
- D. {5} Technical Rationale. Analysis of critical challenges and proposed solutions.
- E. {2} Tasks. A numbered list of proposed tasks, including task title, lead site, and principal investigator for each task.
- F. {5} Costs. Proposed funding profile for each task (in 12-month periods). LEE proposals must break the first 12-months down into two 6-month periods.
- G. For each of the tasks proposed:
 - 1. {1} Task Cover Sheet. Task number, task title, participating sites (lead site first), key personnel (PI first), dependencies (task numbers for other tasks that must be funded if this task is to be done).
 - 2. {1} Technical Objective. Clear statement of what is to be produced, benefits if successful, and likelihood of success.
 - 3. {1} Technical Essence. Key technical ideas and innovations.
 - 4. {5} Technical Approach. Diagnosis of the challenge, rationale for the approach, elaboration of the approach, and comparison with other work.
 - 5. {2} Evaluation Methodology. Appropriate metrics must be outlined. For Engine Development proposals, identify the current NIST benchmarks that are most relevant and provide any

- recommended improvements. In Linguistic Data proposals, include quality control metrics for both primary data and derivatives. In LEE proposals, describe methods for assessing infrastructure quality and acceptance. In Utility Evaluation proposals, explain how the measures will be validated. In Insertion Project proposals, explain how system utility will be measured.
6. {1} Resources Required. Any resources, including linguistic data, required to accomplish the task that are not covered by another task in the same proposal. May include suggestions for data of general interest whose acquisition the government could fund separately.
 7. {1} Outputs Required. Any outputs from other engines that are required to accomplish the task.
 8. {1} Work Plan. Details of how the work will proceed.
 9. {1} Milestones and Schedule. Graphical illustration (Gantt chart) of the milestones and schedule for the task.
 10. {1} Cost Breakdown. Costs for the task during each 12-month period (counting from date of award) broken down into appropriate accounting categories to help reviewers understand the proposed effort. (LEE proposals must break the first 12-months down into two 6-month periods.)
- H. {2} Resources Required. The union of the requirements of all tasks.
 - I. {1} Resources Offered. Any software or linguistic data that the offeror is willing to share with other sites.
 - J. {1} Cost Sharing Offered. Any cost sharing that the offeror wishes to propose.
 - K. {3} Deliverables. All deliverables in addition to the required reports. If technical data or computer software will be furnished with other than unlimited rights (per DFARS 227), spell that out. Include any proprietary claims to results, software, or systems supporting and/or necessary for the use of the deliverables. If there are no proprietary claims, state that.
 - L. {1} Exceptions. Any deviations from the requirements of the BAA must be succinctly stated here, even if mentioned elsewhere.
 - M. {3} Management Plan. Details of how the work will be overseen and administered. This is especially important in the case of multisite teams.
 - N. {3} Personnel Qualifications. Concise summary of the qualifications of all key personnel named above plus the level of effort each individual will contribute during each contract year. (DARPA expects all key personnel associated with a proposal to make a substantial time commitment to the proposed activity.)
 - O. {2} Team Capabilities. Discussion of proposer's previous accomplishments and work in this or closely related research areas. If this is an Engine Development proposal, include the team's most recent results (including site name, test date, and results) in relevant NIST-administered benchmark tests.

- P. {1} Technology Transfer. Description of transferable technology and expected technology transfer path, including commercialization.
- Q. {1} Government-owned Resources. If any portion of the proposal is predicated upon the use of government-owned resources of any type, the offeror shall specifically identify it. If none is required, the proposal shall so state.
- R. {1} Organizational Conflict of Interest. Awards made under this BAA may be subject to the provisions of the Federal Acquisition Regulation (FAR) Subpart 9.5, Organizational Conflict of Interest. All offerors and proposed subcontractors must affirmatively state whether they are supporting any DARPA technical office(s) through an active contract or subcontract. All affirmations must state which office(s) the offeror supports, and identify the prime contract number. Affirmations should be furnished at the time of proposal submission. All facts relevant to the existence or potential existence of organizational conflicts of interest, as that term is defined in FAR 9.501, must be disclosed, organized by task and year. This disclosure shall include a description of the action the Contractor has taken, or proposes to take, to avoid, neutralize, or mitigate such conflict.

Contractors requiring the purchase of information technology (IT) resources as Government Furnished Property (GFP) must attach the following information:

1. A letter on corporate letterhead signed by a senior corporate official and addressed to Director, DARPA/IPTO, stating that the offeror either cannot or will not provide the information technology (IT) resources necessary to conduct the said research.
2. An explanation of the method of competitive acquisition or a sole source justification, as appropriate, for each IT resource item.
3. If the resource is to be leased, a lease purchase analysis clearly showing the reason for the lease decision.
4. The cost for each IT resource item.

Section III. Additional Information

The following items will not be considered part of the proposal for evaluation purposes, but may be provided for the convenience of reviewers or DARPA management:

- A. Relevant Technical Papers. Up to five relevant technical papers that document technical ideas upon which the proposal is based.

- B. PowerPoint Slides. One well-designed PowerPoint slide for each task to illustrate the key technical idea to be pursued. The slide should focus on the bright technical idea, be more diagrammatic than textual, make sense if not animated, and include an informative Notes page.
- C. Recommendations. Constructive suggestions about things DARPA could do to maximize the success of the GALE program.

ADDRESSES

The administrative addresses for this BAA are:

Electronic Mail: BAA05-28@darpa.mil

Electronic File Retrieval: <http://www.darpa.mil/ipto/Solicitations.html>

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