

1999 Joint Dual Use Science and Technology Solicitation

1. The Department of Defense (DOD) announces a program in the area of Dual Use Science and Technology (DUS&T). Information on the DUS&T program may be accessed at Internet address www.dtic.mil/dust. This Broad Agency Announcement (BAA) is being conducted jointly with the Army, the Air Force and the Navy. DOD seeks projects to create and develop new product or process technologies that have potential for both military and commercial applications. If successfully developed, the technology will have both military relevance and sufficient potential commercial applications to support a viable production base. The proposer must be a for-profit company or have at least one for-profit firm on its team. The proposer must bear at least 50% of the cost of the proposed effort. Approximately \$120M of Federal funds will be available for funding proposals in response to this BAA. There is no guarantee that awards will be made in each of the identified topic areas. The Government may make multiple awards in a topic area depending, in part, on the cost of individual proposals and available funding.
2. Service topic areas, with technical/business/contractual points of contact and mailing instructions, are found at the end of this announcement. Each topic also specifies the maximum amount of federal funding which will be available for individual awards.
3. Proposals that involve either basic research or final product development beyond the stage of product prototype or feasibility demonstration are outside the scope of this BAA and will not be acceptable. Readers should note that this is an announcement to declare DOD's intent to competitively fund dual-use technology projects and that no request for proposals, solicitation or other announcement of this opportunity will be made. Small businesses and historically black colleges and universities and minority institutions are encouraged to participate. Teaming arrangements are encouraged when the result is a technically stronger proposal. Due to limited funding, the Government reserves the right to limit awards under any topic, and only proposals considered to be of superior quality will be funded. Awards will be made using a class of nonprocurement instruments called Technology Investment Agreements (i.e., Cooperative Agreements and Other Transactions). These assistance instruments are not subject to the Federal Acquisition Regulation but instead are governed by the DOD Grants and Agreement Regulations (DODGARS). The DODGARS and a description of Technology Investment Agreements may be found at <http://alpha.lmi.org/dodgars/>.
4. **The DOD will host two industry days to support this BAA.** The first will be in **Arlington, VA on 22 October 1998**, at the Sheraton Crystal City. The second will be in **Los Angeles on 29 October 1998**, at the Airport Hilton and Towers. Both conferences will provide an overview of the DUS&T Program and include Service representatives who will brief each of the topic areas. See the DUS&T web site: www.dtic.mil/dust for additional details.

5. Full proposals (technical and cost) are due by 1400 EST 15 December 1998 at the address identified in each Service topic area. However, this BAA shall remain open for one year from the date of publication, and proposals received after 1400 EST 15 December 1998 shall be considered only to the extent that funding remains available beyond the initial selection. Award announcements are expected in February 1999.
6. Any interested company or institution is encouraged, but not required, to submit a white paper synopsis of the planned DUS&T proposal including a rough cost estimate. The white paper should address the selection criteria wherever possible and must identify under which topic area it is being submitted. The white paper should not exceed five (5) pages and should be submitted within 45 days of this notice. The white paper may be e-mailed to the identified technical point of contact for the topic area. Those submitting white papers are encouraged to continue to draft a full proposal during the white paper evaluation process. The technical point of contact for the specified topic area will contact the white paper submitter and provide feedback on the level of interest in the proposed project. It is expected that feedback will be provided within 20 days. Based upon the degree of encouragement received, companies and institutions can better decide whether to continue the preparation of full technical and cost proposals for the described project. Offerors may submit full proposals without going through the white paper process.
7. Award decisions will be based on a competitive selection of proposals resulting from a peer and/or scientific review. Non-Government employees (under appropriate non-disclosure agreements) may be participating as reviewers in the evaluation of proposals. Each individual Service will make final award determinations. Evaluations will be conducted using the following evaluation criteria, which are of equal importance: 1) **Technical Merit & Management Approach** - including impact on the cost or performance of current and/or future defense systems; 2) **Military Benefit** - including potential defense relevance and contributions of the effort to the agency's specific mission; 3) **Commercial Viability of Technology**; 4) **Quality and Amount of Cost Share** (the proposer must bear at least 50% of project costs, and at least 50% of the cost share must be high quality).

B. TECHNICAL PROPOSAL

Technical proposals should be a maximum of forty (40) pages and should include the four sections listed below. Offerors who include information in their proposals that they consider proprietary shall clearly delineate this restriction on both the title page and on each page containing information they wish to restrict and clearly mark the section which is considered proprietary.

A Summary Sheet is to be completed and placed on top of each Technical proposal.

Section 1. Executive Summary: Identify the topic area which the proposal addresses. Provide a brief technical and business description of the contents of the proposal. The

technical area should be written to cogently define your proposal's technical goals, the technical approach you are taking, and the expected technical result. Its purpose is to provide technical reviewers an overview of the technologies proposed. The business area should be written to explain strategic alliance, business, and market issues which successful commercialization and production will involve. It should reflect that the proposers have thought through the potential business, market, and economic implications if the technical goals of the project are achieved. If a consortium of performers is submitting the proposal, it should demonstrate that there is indeed, a shared or common team vision.

Section 2. Technical and Management Issues: Give a detailed explanation of the technical approach, objectives, staffing and resources relating to the development of the proposed technology for both military and commercial use. This should include all of the following:

- A technical description of the technology which offers a superior, innovative or unique solution to a military problem, challenge or need.
- A technical description in sufficient detail to provide clear, quantifiable technical objectives and a technical approach with a schedule showing definite decision points and endpoints.
- A statement of work (SOW), suitable for inclusion or incorporation by reference in the Technology Investment Agreement, that discusses the specific tasks to be accomplished, tied to the specific approach and goals of the project. Personnel performing tasks should be identified whenever possible.
- A discussion that clearly lays out project risks and plans for dealing with them, including a statement of time-to-market considering available resources and the existing state-of-the-art. Note: technical risks are expected and acceptable provided they are well understood and realistic approaches are presented to mitigate them.
- A project team that includes all the resources needed to successfully develop the technology and turn it into a product or process.
- A project team that is organized for efficient and effective execution of the project. There should be clear, complementary roles for all members and clear lines of responsibility and authority in the management of tasks and cost control.

Section 3. Business Issues: Discuss the business issues that the proposer is facing and the proposed commercialization development activities. This section should include all information necessary for evaluators to make an informed judgment regarding the business aspects of the proposed project as they relate to the selection criteria. While a formal "business plan" is not required, the most readily accessible form for presenting a discussion of pervasive impact and commitment to production maybe to provide a

business plan. Proposers should insure that at a minimum their discussions address the following points:

a. **Military Benefit:** Projects should focus on technologies that will have a major impact on the cost, performance or sustainability of defense systems. In general, technologies that will have the greatest impact on the Nation's defense as well as those that will have a pervasive impact across a range of defense systems will be rated higher. Discuss how the ultimate product or process of this effort will benefit the Service and/or DOD. Describe the technology's impact on the cost, performance or sustainability of defense systems. Lay out a clear path (specifically, the need and timing for planned system or upgrade) for the technology to be incorporated into the defense system(s).

b. **Commercial Viability of Technology:** Objectives of the DUS&T are to obtain the economies of scale, accelerated product improvements, and increased sustainability inherent in the commercial marketplace for defense procurements. Thus, it is essential that a commercialization path for the proposed technology be identified and that potential commercial applications be sufficient to support a production base that would be capable of meeting future defense requirements. To be avoided is a technology that would not be economically viable without significant military buys.

- Discuss the intended commercial markets. This should include a discussion of primary customers and the specific advantages accruing from this effort which will ensure an advantage over competitors. When lower cost is the basis for the competitive advantage of the proposed product or process, sufficient pricing data should be presented to permit evaluation of the claim.
- Discuss the long-term, commercial value of the proposed effort, in terms of both market share and the establishment of high quality job opportunities. This discussion will demonstrate how this commercial value justifies the proposed Government investment.

c. **Cost Share and Risk:** The technical proposal should demonstrate a commitment to share the cost and risk of the proposed effort with the Government. The proposal should include the following:

- Describe in detail the cost share for this effort, including the sources and the quality/type (i.e., cash, in-kind).
- **High Quality Cost Share** - These are financial resources that will be expended by the award recipients on the proposed project's SOW and will be subject to the direction of the project management team. This basically means the funds the non-federal participants will spend for man-hours, materials, new equipment (prorated if appropriate), subcontractor efforts expended on the project's SOW, and restocking the parts and material consumed. High quality cost share can include new IR&D

effort, but only if those funds are offered by the proposers to be spent on the SOW and subject to the direction of the project management team.

- **Low Quality Cost Share** - These are non-financial resources that will be expended on the proposed project's SOW and will be subject to the direction of the project management team. This is typically wear-and-tear on in-place capital assets like machinery or the prorated value of space used for the project.
- **Unacceptable Cost Share** - This is a resource that either (1) will not be expended on the proposed project's SOW or (2) will not be subject to the direction of the management team as discussed above. Unacceptable cost share will be subtracted from the proposer's claimed total cost for the project, and the required industry cost share recalculated. Unacceptable cost share examples include:
 - Sunk costs, i.e., costs incurred before the start of the proposed project;
 - Foregone fees or profits;
 - Foregone G&A or cost of money applied to a base of IR&D;
 - Bid and proposal costs;
 - Value claimed for intellectual property or prior research;
 - Parallel research or investment, i.e., research or other investments that might be related to the proposed project but which will not be part of the SOW or subject to the direction of the project management team. Typically these activities will be undertaken regardless of whether the proposed project proceeds;
 - Off-Budget Resources, i.e., resources that will not be risked by the proposer on the SOW, and should not be considered when evaluating cost share.
- Provide the actual dollar values for the cost shared items in the separate cost proposal, not in the technical proposal.
- Discuss the business risks, if any, incurred by the proposer (or team member) other than the cost share described above. This could include any changes to corporate strategies, long-term commitment of resources or other consequential changes.

Section 4. Selection Criteria Index: Provide a one-page index showing the pages of the technical proposal on which each of the selection criteria is addressed.

C. COST/FUNDING PROPOSAL

Cost/funding proposals are not restricted in length, have no specific page layout requirements, and should address project tasks and periods of performance. Work breakdown structures and certified cost or pricing data are neither required nor desired. Cost/funding proposals should be organized to include three sections in the following order: total project cost, cost sharing and in-kind contributions, and cost to the Government. These are described in more detail below.

Section 1. Total Project Cost: This section will give a detailed breakdown of costs of the project. Cost should also be broken down on a task-by-task basis for each task appearing

in the statement of work. This should include all of the proposed cost to the Government and cost sharing by the proposer.

The following information should be presented in your proposal for each task of the effort: total cost of the particular task; total proposer cost share; funding requested from the Government; and elements of cost (labor, direct materials, travel, other direct costs, equipment, software, patents, royalties, and indirect costs). Sufficient information should be provided in supporting documents to allow the Government to evaluate the reasonableness of these proposed costs, including salaries, overhead, equipment purchases, fair market rental value of leased items, and the method used for making such valuations. Profit should not be included as a cost element.

Section 2. Cost Sharing and In-Kind Contributions: This section will include: (1) the sources of cash and amounts to be used for matching requirements; (2) the specific in-kind contributions proposed, their value in monetary terms, and the methods by which their values were derived; and (3) evidence of the existence of adequate cash or commitments to provide sufficient cash in the future. Affirmative, signed statements are required from outside sources of cash.

Proposals should contain sufficient information regarding the sources of the proposer's cost share so that a determination may be made by the Government regarding the availability, timeliness, and control of these resources. For example: How will the funds and resources be applied to advance the progress of the proposed effort? What is the role of any proposed in-kind contributions? What is the time phasing of the proposed cost sharing? (Cost sharing phasing which calls for disproportionately early funding by the Government with industry cost sharing being inserted late in the program may have an adverse impact on the proposal's ranking and at a minimum is subject to renegotiation).

Section 3. Cost to the Government: This section will specify the total costs proposed to be borne by the Government and any technical or other assistance including equipment, facilities, and personnel of Federal laboratories, if any, required to support these activities. The cost to the Government should be that portion of the proposed effort that is not covered by cost share. The costs incurred and work performed by any DOD or national laboratory "partnering" with the offeror under the proposal shall normally be considered costs of the Government and not costs of the proposer for purposes of the cost-sharing requirement.

Proposals should contain sufficient information regarding the resources to be provided by the Government so that an evaluation of their availability, timeliness, and control may be made.

D. PROPOSAL PAGE FORMATS

All proposals should be printed such that pages are single-sided, with no more than fifty-five (55) lines per page. Use 21.6 x 27.9 cm (8.5" x 11") paper or A4 metric paper. Use an easy-to-read font of not more than about 5 characters per cm (fixed pitch font of 12 or

fewer characters per inch or proportional font of point size 10 or larger). 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 2.5 cm. (1”).

E. ORALS, INTERVIEWS, AND SITE REVIEWS

During the proposal review and final stages of the selection process, some proposers may be asked to provide clarification and/or oral presentations to members of the selection panel or to travel to Washington D.C. or other location for an interview. DOD also reserves the right to conduct site reviews prior to award of assistance agreements.

F. REPORTING REQUIREMENTS AND METRICS

All awardees receiving agreements under this BAA will be required to develop a commercialization plan for the activity stimulated by the award. Awardees will be required to make periodic reports on technical progress and financial outlays associated with their project(s), and, in addition, awardees will report on the progress towards the stated project goals. The awardees may be requested to continue these periodic reports beyond the conclusion of the actual term of the agreement.

G. TOPIC AREAS: The DUS&T topic areas under consideration are listed by Service.

Army
Navy
Air Force

Dual Use S&T Proposal Summary Sheet		Army	DU S&T USE ONLY		
		Navy			
		Air Force			
1. Proposal Title:					
Topic Area:			Focus Area Supported:		
2. Name of Proposers (include names of ALL non-federal participants and indicate category code from below - For Lead Proposer, include POC name, phone, and e-mail):					
Category of Firm (indicate next to name of ALL non-federal participants ALL codes that apply):					
1.	Commercial Firm/Division*	3.	Defense Firm	5.	Small Business
2.	Not-for Profit	4.	Foreign Owned	6.	Other--explain-
3. Service Sponser (Name, Organization, Address, Phone, FAX, E-Mail):					
4. Project Description (Provide a brief description of the technology and project):					

5. Project Cost Summary:					
Total Project Cost:					
DU S&T Funds Requested					
Service Funds: (include FYs and PEs - include individual dollar amounts if split between PEs.)		FY:	PE:		
		FY:	PE:		
		FY:	PE:		
Non-Federal Cost Share: (list each participant below)	Total \$ Amount	\$ Amount High Quality Cost Share	\$ Amount Low Quality Cost Share	\$ Amount Unacceptable Cost Share	For Profit Participant (yes/no)

*Commercial Firm/Division: Firms/divisions whose commercial sales have averaged at least 70% of total sales over the past 5 years.

