

Question1: Is gradual technology development over multiple phases acceptable?

Answer1: Yes. Solution can be developed over multiple phases as long as the goals and objectives outlined in the BAA are met by the end of each phase of the program.

Question2: Does the 3DSoC fabrication facility need to have a TRUST or ITAR designation?

Answer2: No, however the 3DSoC fabrication facility needs to be in the United States.

Question3: For a wafer stacking approach, do the component wafers need to be fabricated in the United States?

Answer3: No, while the final wafer stacking process needs to be done in the U.S, the component wafer fabrication does not.

Question4: Do we need to meet the 9Million interconnect/mm<sup>2</sup> requirement among multiple layers or between two layers?

Answer4: 9Million Interconnect/mm<sup>2</sup> is between two layers.

Question5: Does a comparison design needs to be done in 7nm technology to show impact of developed technology vs. 7nm?

Answer5: No. 7nm comparison data is expected to be obtained through simulation. 7nm hardware comparison data is preferable but not expected.

Question6: Do you expect multiple designs from the TA-2 teams for the MPW runs in phases 2&3?

Answer6: TA-2 teams are expected to design circuits that will exercise the 3DSoC process as part of the Development Evaluation Chip (DEC). Designs from external DoD and commercial design teams are anticipated for MPW runs in Phases 2&3.

Question7: What will be the source of the external DoD and commercial designs?

Answer7: We expect to release a separate BAA during the phase1 of the 3DSoC program that will solicit external DoD and commercial designs for implementation in Phase 2&3 MPW runs.

Question8: Is down selection between performers part of the program plan?

Answer8: The program involves no formal down selects. However, we may choose to exercise or not exercise a future option (i.e., Phase 2 or Phase 3) based on technical progress and funding availability

Question9: Can in kind contributions be considered cost sharing?

Answer9: In-kind cost sharing is allowable when proposing/negotiating an OT as the award instrument (See, for TIAs, Title 32 - National Defense. Subtitle A - Department of Defense. CHAPTER I - OFFICE OF THE SECRETARY OF DEFENSE. SUBCHAPTER C - DoD GRANT AND AGREEMENT REGULATIONS §§ 37.525 through 37.555). The only allowable form of cost sharing under a procurement contract is cash (sharing in the incurred allowable costs/expenditures)(See FAR 16.303).

Question10: Can costs incurred before the program start be considered part of cost sharing?

Answer10: No, in general only costs incurred during the program performance period can be considered for cost sharing.

Question11: Do you have guidance on benchmarks that can be used to compare performance at power?

Answer11: Proposers should identify the benchmarks they use for performance at power comparison.

Question12: How can one propose to TA-3 without knowing the technology being developed in TA1?

Answer12: TA-3 proposals need to include plan for development of tools for variety of 3DSoC approaches. Please make all assumption clear in the proposal.

Question13: Is 50% cost share a requirement for the program?

Answer13: No. There is no specific cost share requirement. However, cost sharing is expected if there is significant commercial benefit to the proposers from the proposed work. Amount of cost sharing should be proportional to the anticipated commercial benefit.

Question14: Does the cost sharing need to be distributed uniformly across all phases of the program?

Answer14: No, however, if selected, the distribution of cost share could very likely be an item discussed during negotiations

Question15: Are wafer stacking and or sequential processing options for the program?

Answer15: Yes. As long as the approach meets the goals of the program.

Question16: Is there a process in place for teaming?

Answer16: There is an ERI master website (<http://www.darpa.mil/work-with-us/electronics-resurgence-initiative>) that allows potential proposers to post their areas of expertise for review by all other potential proposers under the "Find a Partner" heading.

Question17: What time zone is used to identify the time for proposal submission deadline?

Answer17: EST (Eastern Standard Time, U.S.A)

Question18: Should reliability be considered part of the proposal?

Answer18: Yes, proposers should provide a plan for initial reliability studies as part of the TA-1.

**Question19: We are a small company with cash-basis accounting, and it is our understanding that our best option is to apply as TIA. Assuming a teaming approach where a university is the prime and we (a for-profit nontraditional) are the subcontractor, are there 2 proposals to be submitted (one from the prime and one from the subcontractor) or is the subcontractor proposal to be submitted within the prime's proposal (in Volume II, Section 2, G. Subcontractors)?**

**Answer19: It is important to understand that a proposer team must submit a single proposal in response to the BAA so as to avoid having the individual proposals (in your example) deemed non-compliant with the BAA. The single proposal, in this example, is submitted by the organization who will be serving as the prime contractor. The award instrument type is dictated by the contractual relationship between the prime contractor and the government - all subcontractors would receive a sub-award that conforms to the prime contractor's award instrument (for example, a FAR-based procurement contract to the prime contractor would involve FAR-based procurement subcontracts, an OT agreement to the prime contractor would involve only those flow-downs necessary to ensure the prime meet their contractual obligations to the Government. It is worth noting that a subcontractor under a procurement contract could receive a FFP procurement subcontract - which, if the subcontractor is a non-traditional, mitigates any cost accounting system concerns and allows for milestone-based payments.**

**Question20: According to Volume 2, Section 2 of the BAA, the subcontractors have to prepare their proposals at the same level of detail as the required by the prime. For the title sheet of the subcontractor's proposal is the subcontractor itself the leading organization? Does the subcontractor proposal identify its own PI? Do we include in the SOW (or TDD) the tasks that have to be performed by the prime as part of our team effort?**

**Answer20: Just as a point of clarification before directly responding to the above questions, it is important to note that the subcontractor is submitting a proposal directly to the prime contractor in their team – not to the Government per se, and the prime contractor is responsible for incorporating the information received by the**

**subcontractor(s) into their prime contractor submission to the Government (only one formal submission is being submitted by each team – that submission including all information required by the solicitation).**

**The subcontractor/s would be a member of a team and, contractually speaking, subordinate to the prime contractor. Each subcontractor would submit to the prime contractor (typically in response to a formal request for proposal from the prime contractor if operating more formally and if the prime contractor is considering bids from multiple potential subcontractor organizations) a fully compliant subcontract proposal tied to their specific scope of work (as defined by the prime contractor - meaning the subcontractor SOW will include only those tasks that the prime has asked them to perform as a member of a single team). Generally speaking, the PI is a role filled by the prime contractor - although it's not improper for a subcontractor to also refer to their own technical lead as a PI. It is important to clarify that although this information (SOW, cost proposal, etc.) is submitted as part of the prime contractors proposal to the Government per the solicitation, none of these items will be included in the award instrument between the Government and prime contractor (the contractual relationship will be solely between the Government and prime contractor).**

**Question21: In case of proposing as loosely connected performers (one of the teaming models discussed at the ERI/Page 3 Workshop this past summer), is it possible for each team member to propose separately (for example, the prime submits a procurement contract proposal and the subcontractor submits a TIA proposal) but bound together by an ACA?**

**Answer 21: No - as stated in the above two responses, a single team must submit a single proposal in order to be compliant with the solicitation. Just for further, related, clarification, it is important to understand that the ACA model discussed in the ERI/Page 3 Workshop is something that is structured after a conforming proposal has been selected for negotiation - it's a model that is put together by the Government after proposals have been selected and when broader, loosely connected, teams need to be formed to meet the overall program goals and objectives (especially relevant when the solicitation allows proposers to propose to discrete elements/task areas versus to having to propose to all of the program elements/tasks). A single team needs to be captured in a single proposal and only a single award can**

result from that proposal - splitting a team into multiple proposals could very well result all of the proposals being deemed noncompliant since they must be reviewed independently per the solicitation.

**Question22:** Do TIA proposers need to submit information required by Volume 2, Section 2, Detailed Cost Information? It is our understanding that according to Note 1(d) of this section "Cost or Pricing data" are not required if the proposer proposes an award instrument other than a procurement contract ( i.e., cooperative agreement, grant, or other transaction). In this case, it is our understanding that as OT proposer we will need to submit information described in Volume 2, Section 3, instead of information required in Volume 2, Section 2. Please confirm if we understand this right.

**Answer22:** All proposers need to submit information required by Volume 2, Section 2 "Detailed Cost Information" to the maximum extent possible. This information is needed by the Government reviewers in order to fully understand what is being proposed - specifically, in order to assess cost realism, which is one of the evaluation criteria. The more cost details that are not provided the greater chance that the Government reviewers will not fully understand the proposal or will find weaknesses and or risks pertaining to cost realism. However, for those proposing a TIA, there is no requirement for the submission of "certified cost and pricing data" because this term is a procurement contract (FAR/DFARS) term. So - the lack of cost details in an OT proposal will not rise to the level of proposal non-conformance, like it might for a procurement contract whereby the requirement for certified cost and pricing information does exist (by regulation), but - as noted - the lack of any cost details could become an issue in terms of the Government reviewers not being able to fully understand the proposal, as whole, and/or in assessing cost realism (remember this is a competitive solicitation process).

**Question23:** In regard to cost share, when providing the cost breakdown by phase and task do we list the full project cost or just the Government's share?

**Answer23:** The cost proposal build-ups (Summary Build-up and Detailed Build-up) must capture the full cost (budget) of the project being proposed (all costs required to accomplish the technical approach being proposed). The cost share is simply applied at the bottom-line. The Government needs to be able to fully understand what is

being proposed, and a full project budget is part of the information data set that is assessed. It's important to note that before agreeing to a proposed cost share amount/percentage, the Agreements Officer needs to first understand and agree with the total proposal amount (for example, 50% performer share in a total budget that is deemed to be twice as expensive as it should be for the project being proposed would not be reasonable).

**Question24:** Regarding the SOW, do TIA proposers submit a TDD instead of SOW? According to DARPA ERI, Page 3 Investments, TIA Model Companion Guide, Attachment 1 " TDD should include both program and project background sections, that can be understood by a non-technical reader" - does this mean that in the TDD we have to briefly outline the project objectives, as well as our proposed solution?

**Answer24:** The SOW and TDD are actually the same documents - they serve the same purpose. It's just a terminology distinction. Statement of work (SOW) is the scope document for procurement contracts, Research Description Document (RDD) is the scope document for assistance instruments (grants and cooperative agreements), and Task Description Document (TDD) is the scope document for Other Transactions. They have different names but all are the same document, generally speaking, and include basically the same content.

**Question25:** According to BAA Volume-II Section 2, G. Subcontracts: "The prime contractor is responsible for compiling and providing, as part of its proposal submission to the Government, subcontractor proposals prepared at the same level of detail as that required by prime." Does this mean that the prime will include their subcontractor's SOWs and Technical Approach, and Cost Estimates, etc. as part of their proposal to the Government, listing specifically which tasks will be done by the prime and which will be done by the subcontractor(s)? In order for the prime to prepare the proposal the subcontractor has to provide the prime with its own proposal, correct?

**Answer25:** The prime will only be required to include as part of its cost proposal Volume to the Government each subcontractor cost proposal and the associated SOW. There is no requirement for the prime contractor to include, as part of its proposal to the Government, technical volumes for the subcontractors - the prime contractor will speak for the entire team when it comes to the technical volume (to

include the prime contractor's SOW), when it comes to the prime contractor's own cost proposal build-ups (the subcontractor cost proposals, and SOWs, are included in the prime contractors cost volume as backup documents per the solicitation. But - yes - the prime contractor must have full cost proposals from each sub in order to build their own separate submission to the Gov't. If a subcontractor were to be unwilling to provide pricing to the prime contractor that includes proprietary rates and factors then that subcontractor (as discussed in the solicitation) would then, instead, provide their cost build-ups (summary and detailed) with certain elements reflecting full wrap rates (but still having all of the other required cost elements/information - labor categories (with wrap rate), labor hours per labor category, travel, ODCs, materials, equipment, etc.

**Question26:** There seem to be an overlap between SOW, Technical Approach and Schedules, and Milestones.

(a) Is SOW essentially like Executive Summary?

**Answer 26(a):** The SOW is reflective of the technical approach. The technical approach is solely for proposal purposes - it does not generally get incorporated in to the resulting contract. The SOW is specifically defining the scope of work and does, in fact, become part of the resulting contract. If selected, the Contracting Officer will pull the SOW out of the tech volume and begin fine-tuning it, with assistance from the DARPA Program Manager, Contracting Officer's Representative (COR), and Principle Investigator (PI), for incorporation into the contract. Therefore, the technical approach and the SOW do generally capture the same thing - that being the project that you are proposing but the SOW is focused on tasks and deliverables by Phase in order to later serve a part of the resulting award instrument, while the technical approach is mechanism by which the proposer fully describes the project to the Government.

(b) According to DARPA ERI, Page 3 Investments, TIA Model Companion Guide, Attachment 1 " TDD (SOW for OTs) should include both program and project background sections, that can be understood by a non-technical reader". Does it mean that in the TDD we have to briefly outline the project objectives as well as our proposed solution?



**Answer26(b):** The TIA Model and Companion guide are solely for information purposes only – their purpose is to bring new performers up to speed on what an OT is and how they are negotiated - they are not part of the BAA/solicitation and proposers have no obligation/requirement to comply with them as part of the proposal preparation process. Please, just follow the BAA instructions when preparing your proposal. Details discussed in the TAA Companion Guide will be added to the SOW (TDD) during negotiations if your proposal is selected (information such as program background, project background, Government Furnished Information or Property expectations, interaction with other project performers, etc. ).

(c) According to BAA the SOW has to describe tasks, durations, dependencies and deliverables, detailed description of the approach, responsible parties, completion criteria, etc. and it seems to overlap with the information to be included in Technical Approach, and Schedules and Milestones (tasks, durations, dependencies among the tasks). How is it better to approach these sections, in order not to repeat the same information in 2 places?

**Answer26(c):** It is fully expected that there will be some overlap between sections of your technical proposal as necessary to specifically address the BAA proposal preparation requirement; however, the page count allotted to the technical volume (and to specific sections of the technical volume, if applicable) takes this into account.

**Question27:** There are several considerations regarding the Fundamental Research. How do I know if the program I'm intending to proposal to is considered fundamental research?

**Answer27:** Please consult M. Blackstone's Proposers Day slides which are posted on the ERI Webpage for clarification. The clarification will help but, as stated in the BAA, this is a decision ultimately left to the Contracting Officer depending on the circumstances at hand taking into consideration the nature of the research project, nature of the proposer team, type of funding being used (6.1 vs 6.2), etc.. Please also

**consult the BAA covering the program you are intending to propose to - as an example, for POSH, please consult pages 43 and 44 of the BAA.**

**Question 28: What is your foreign partner policy? I was trying to find this information in the BAA but could not. I am intending to include a foreign organization on my team – is this permitted by the BAA?**

**Answer28: This subject is covered in each of the Page 3 BAAs. As an example, for BAA No. HR0011-17-S-0056, please consult page 29 under “III. Eligibility of Information.” There it states that “All responsible sources capable of satisfying the Government’s needs may submit a proposal that shall be considered by DARPA.” Also, for example, for BAA No. HR0011-17-S-0056, please consult slide 6 of the Contracting Officer’s Proposers Day slide deck dated 22 September 2017 which is available on the ERI webpage, and which states “Foreign participants/resources may participate to the extent allowed by applicable Security Regulations, Export Control Laws, Non-Disclosure Agreements, etc.” Please be sure you are coordinating often with your organization’s contracting office as you prepare your proposal – they can help you understand BAA compliance issues.**