DARPA-PA-26-04:

Smash

Question and Answer (Q&A) Document

March 3, 2026

1. What is the initial feedstock? When will the specific sample compositions be provided?

   - Feedstock samples provided by the government will be a bulk synthetic material in the solid phase. There will be 3 sets of feedstocks, each consisting of 8 elements that are a representative spread across the periodic table. Performers are expected to show separation of at least 1 feedstock from the selection of 3 (8 elements) of their choosing by the mid-Phase 1 review and at least 2 feedstocks (16 elements) by end of Phase 1. Technologies that require feedstock to be broken down or in a phase other than a solid must describe these steps within the technical approach and account for them in the energy inputs (see Attachment C, section 4). Standard feedstock compositions will be provided at program kickoff.

2. Are you looking for partners to supply feedstock?

   - No.

3. What minerals are Smash specifically looking for? Should proposers pick elements and solutions? Would recycling electronics/magnets for REEs be of interest? Do the provided feedstocks change based on application use-case?

   - Smash is looking for technologies that separate **any** solid feedstock into its individual elements. Per the Program Announcement, page 6, "For the purpose of evaluating performance against the metrics, standardized solid feedstock with known composition will be provided by the government. Throughout the program, performers are encouraged to evaluate their performance in processing feedstock of their choosing, particularly feedstock with economic or transition significance." Per Attachment C, the Commercialization Plan "should describe the commercially-relevant feedstock and the economic impact of separating it."

4. Can the focus be pivoted on REEs with other elements in chemical complexes, not fully separated?

   - No. The Smash program seeks to separate all elements within a feedstock. Technical approaches with a narrow focus on one region of the periodic table will not meet the program metrics.

5. Can a system be tailored to a specific feedstock?

    -   Solutions must demonstrate the program metrics at the time of evaluation, and prototypes are expected to separate 80 elements at the end of the program. Tailored solutions are allowable, but the degree to which the system can be tailored becomes limited later in the program.

6. What is the target state of the refined element?

    -   The final state of the separated species must be a neutrally pure element. Elements in compounds or solutions will negatively affect the purity of the target element for the purpose of evaluating the element utilization.

7. Some elements are difficult, volatile or dangerous to deal with in its pure elemental form. Would an approach that results in output streams that are pure, but that are simple (binary) compounds be out of scope?

    -   See question 4 above. The proposal should describe the process (and energies) required to convert the pure binary compounds into the elemental form. Additional considerations on handling and the costs of mitigating the associated risks should be included in the commercialization plan. Please refer to Attachment C, section 6 for details pertaining to the commercialization plan.

8. Some elements are more critical or valuable than others. Is there any special weighting given to the elements? Would 90% pure Nd be viewed as less valuable than 99% pure sulfur?

    -   All elements are treated the same with regards to the program metrics, but the element significance or criticality can be identified in the commercialization plan. Please refer to Attachment C for details pertaining to the commercialization plan.

9. What TRL levels are applicable to Smash?

    -   There are no restrictions on the Technology Readiness Level (TRL) of the proposed approach. Smash is seeking technologies that process solid feedstock, separate all stable elements of the periodic table, and do so in an efficient and high throughput manner. Approaches featuring mature technologies will need to describe the high-risk research that will be conducted during the proposed work. Combinations of orthogonal technologies are acceptable, but proposers are expected to describe the novelty and challenges of their proposed approach.

10. Is Smash interested in components or only full solutions?

    -   Smash is looking for full solutions that meet the program metrics.

11. Can foreign nations work on the proposal?

- Non-U.S. organizations and/or individuals may participate to the extent that such participants comply with any necessary nondisclosure agreements, security regulations, export control laws, and other governing statutes applicable under the circumstances. Please review the Smash CUI Guide provided with the PA for further details.

12. Does teaming increase chances of selection?

- No. While teaming may enhance the expertise and capabilities of the proposed technical team, it does not inherently increase the chances of selection. As stated in the Overall Scientific and Technical Merit evaluation criteria, DARPA will evaluate whether the proposed technical team has the expertise and experience to accomplish the proposed tasks.

13. Is there possibility of teaming after abstract submission or do all teams need to be arranged prior?

- Formal teaming does not need to be in place for the abstract submission, and the Prime may re-organize their team (including the addition or reduction of subcontractors) to best address any government feedback. However, given that abstracts are required, the entity that submits the abstract must be the entity that submits the full proposal.

14. Will DARPA assist in teaming if they see alignment between abstract submissions?

- No, DARPA will not assist in or direct teaming between proposers. While DARPA encourages teaming arrangements and provides opportunities for participants to connect, such as through the attendee list and poster session during Proposers Day, it does not actively facilitate, or direct teaming based on abstract submissions or perceived alignment.

15. Are there any limitations on performers bidding (or being selected) on multiple proposals? If so, what are the limitations?

- There are no restrictions on the number of abstract submissions or efforts a team can be part of. However, DARPA strongly encourages teams to focus their efforts on their single strongest idea to maximize the quality and impact of their proposal.

16. Does the lead performer on a submitting team need to be the entity that receives the highest amount of funds on a team?

- No, the prime organization does not need to be the entity receiving the highest amount of funds on a team. The prime organization can be any entity capable of satisfying the government's needs. However, it is expected that the prime organization will perform a significant portion of the technical work on the project.

17. For a commercial entity that is interested in partnering with DARPA to support the program outcomes but is not interested in performing research and development, what is the best way to engage to support proposals?

- If an entity is looking to support proposed efforts but does not intend to perform R&D, the best approach is to establish a relationship with a research performer and have them include you in their proposal as a third-party co-funder. Funding entities should provide a letter of support, which can include a commitment of funding. Depending on the terms, this funding could be considered as resource sharing under 10 U.S.C. § 4021. For more specific scenarios or guidance, please email smash@darpa.mil.

18. Does submitting a proposal guarantee an oral presentation?

- All full proposals submitted by the time and date outlined in the PA, and deemed conforming, will receive an oral proposal slot. Please review the Smash PA for notification and submission deadlines.

19. Will there be feedback on full proposals given before the oral presentation?

- No.

20. Is there a virtual option for the oral presentation?

- No.

21. Will FFRDCs be allowed to be a primary technical performer?

- An FFRDC may participate in multiple proposals; however, the FFRDC should contact the DARPA PM at smash@darpa.mil if they believe they have a capability that would benefit numerous performers.

22. Is the FFRDC justification required in abstract or just full proposal?

- Please see page 15 and 16 of the Smash PA for details on documentation required by FFRDCs regarding their specific authority establishing their eligibility to propose to government solicitations and compete with industry. This documentation will be required as a part of the full proposal.

23. Can you provide clarity on whether payments will be tied to milestone performance (e.g., if payments/costs will only be reimbursed if milestone metrics are successfully met)?

- DARPA anticipates utilizing fixed milestones with payments tied to the successful completion of defined accomplishment or exit criteria. Final exit criteria will be established during award negotiations for selected proposals and will focus on verifying observable technical achievements that demonstrate substantial progress toward the project's overarching goals.

24. What level of detail is required for a Techno-economic analysis (TEA) in the proposal?

   • Please refer to the criteria outlined in the Program Announcement, page 5, and Attachment C, Section 6.

25. Will we be disqualified from selection if we continue to work on our technology before the program starts?

   • The submitted proposal will be evaluated in accordance with the stated criteria in the Program Announcement (PA). If selected, any work proposed as part of the submission that has been completed after the proposal submission date should be disclosed during negotiations. Additionally, if resource sharing is proposed, any completed work may impact the valuation and recognition of the resource share as a part of the negotiations.

26. What is the budget for Smash?

   • Project costs should be commensurate with the proposed technical approach. Per Attachment D, equipment can be proposed but should be justified and support documentation provided with the proposal.

27. Is there funding for equipment?

   • Yes. See question 26 above.

28. Will DARPA have non-exclusive access to existing IP?

   • Per the PA, the government expects to receive a non-exclusive, royalty-free license sufficient to allow performance of the Program and to use, test, evaluate, and transition the deliverables solely for government purposes. However, it is the Proposer's responsibility to identify any Background (pre-existing) IP that will be required as a part of their effort and identify any restrictions and rights to be granted to the government.

29. Is there cyber security guidance from DARPA/USG for SCADA & PCM security and general network security to protect intellectual property?

   • Proposers are responsible for protecting their own intellectual property. Per Attachment C, section 7, in the case of handling Controlled Unclassified Information within the program, "Proposers are required to either (1) certify that their information systems comply with NIST SP 800-171 and DoDI 8582.01, OR (2) propose a realistic plan to achieve compliance within 4 months of program kickoff to include identified specific steps, timeline, responsible point of contact(s), and budget allocation."

30. Will performers be expected to sign associate contractor agreements or other agreements to allow communications and coordination between performer teams? If not required through agreements, please describe the level of collaboration anticipated between phase 1 performer teams.

- There is currently no requirement for associate contractor agreements. Collaboration between Phase 1 performer teams will occur through periodic program meetings, as determined by the DARPA Program Manager. These meetings will provide opportunities for performers to share progress, discuss challenges, and align efforts with program goals.

31. Should we include the EEI program in our proposals? Is this part of the budget?

- No. Embedded Entrepreneurship Initiative (EEI) decisions occur after program award and are not made by the Program Manager.