#### Q1: Will JUMP 2.0 accept a submission from a non-US institution?

A: No. JUMP 2.0 is only soliciting whitepapers from performers at US-universities.

#### Q2: Will JUMP 2.0 accept submissions outside the seven themes?

A: No. Only submissions within the seven themes will be considered for award.

# Q3: Are Federally Funded Research and Development Centers (FFRDCs) allowed to apply as either a prime (lead institution) or sub (networked institution) in JUMP 2.0?

A: No. FFRDCs are not authorized to participate as prime or sub-contractors on JUMP 2.0 proposals as they are not academic enterprises. Performers are limited to U.S. universities.

# Q4: Can you provide any guidance on appropriate center size, number of participants, number of universities, etc.?

A: Please carefully review and follow the guidance in the JUMP 2.0 Research Announcement for Center whitepapers. Our sponsors want to ensure a 'critical mind share' of the academics involved for the duration of the Center, and a broad, ambitious research agenda. They have provided guidance of a *median* project size of ≥250k per project per PI, or approximately 20 professors per center. The median guidance allows for the use of smaller awards where it might 'seed' a new idea, evaluate a new PI, or deliver a key component for the center at a lower price point, but without maximizing our PI and university count. While there are no specific requirements on the number of universities in a research center, too few schools may signal a small and/or overly homogeneous vision, whereas too many schools may deliver a collection of individual projects without the amplification of co-location. Again, the key thing to our sponsors is that we have a 'critical mind share' of the talent in the JUMP 2.0 program.

# Q5: The 10 PI limit is a change from the last JUMP solicitation. What is the goal, and how will full Centers be formed during phase 2? Will you assign PIs to Centers, or require Directors to choose single channel contributors?

A: We want to encourage collaboration as part of the selection process, as it will be critical to long-term success of the Centers. We also want to reduce structural barriers to new ideas and new proposers and performers. The 10 PI limit provides an opportunity for sponsor interaction and guidance before teams and budgets are fully defined, with 'cap space' for Directors to make changes and include new performers.

Where appropriate, we will encourage teaming as part of our feedback. If you miss something, we will let you know. Along with sponsor feedback, a list of contact information for promising single channel proposers by theme will be provided as a resource to help Directors build out their Centers for phase 2.

However, we will not assign PIs to Centers, or require Center Directors to staff their teams from the single channel proposals. We also won't share specifics on other proposals.

# Q6: It often happens that a PI is working on several distinct technologies that may fit in to several target vertical/parallel centers. Is this allowed and/or are there any limitations?

A: Allowed and encouraged.

- A given PI may be present on multiple center whitepapers.
- A given PI may submit several single task whitepapers.
- Center directors and / or assistant directors may be involved as a PI in somebody else's center or single task whitepaper.
- A given PI may eventually be in more than one Center, if part of multiple winning proposals.
- Limitation of one center proposal per Director/Assistant Director from their "lead institution" for a single theme.

# Q7: How will the single task whitepaper process work? With the new 10 PI limit, should I hold off on joining a Center in phase 1 and submit a single channel proposal instead?

A: By submitting a white paper (center or single task) to the JUMP 2.0 research announcement, you authorize SRC to share contact information (name, university, email, address, and phone number). The contents of white papers will not be shared by the SRC as this information is confidential and proprietary.

Following the white paper review phase, JUMP 2.0 leadership will work to facilitate teaming between potential center leaders and the highest-rated single channel proposers for each theme. All PIs will be expected to comply with winning center guidelines.

Proposers are strongly encouraged to bring their most exciting ideas as part of a strong Center proposal. Single channel proposals will not be selected by sponsors for award, directly or indirectly. It is anticipated that many more single tasks will be submitted than can be incorporated by Center Directors in phase 2.

#### Q8: How detailed should the budget be? Numbers divided by theme/tasks? A budget for every year?

A: An itemized, overly detailed budget is not required for phase 1. Please include your total annual budget request and be sure to include any overhead charges at your university. We would like to understand the number of tasks (projects) as well as expected student count. You do not need to break the total down by category at this point in time.

Q9: I'm constructing my center whitepaper proposal. I understand that each research center should have themes (sub-center goals) and tasks (the specific projects). How many themes and projects should a research center whitepaper / full center proposal have?

A: Each center should have an overarching goal. Goals are typically divided into themes, which are further divided into tasks. Typical structure of a JUMP Center today:

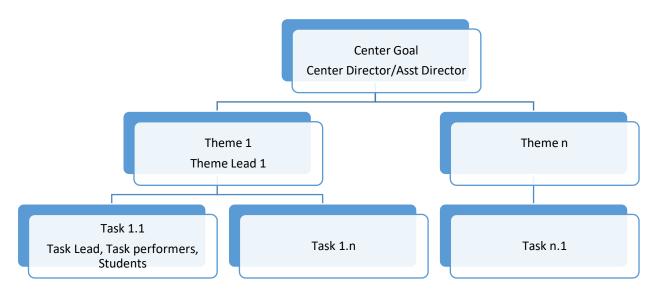


Figure 1: Center Hierarchy

The number of tasks is subject to your overall budget and allocation of money to each task. Task definition should include the line item budget, the staffing / student model, the specific scope of work, etc.

Themes are a collection of tasks that deliver a key component of the research center's overall goal. They are led by a theme leader and/or co-theme leader. We have found that research centers of this magnitude operate best with about 3 or 4 themes, dynamically evolving over the life of the Center. Too few center themes may limit the potential scope and impact. Too many will disaggregate Center activities and make critical mass collaboration more difficult.

Q10: Do all funded faculty on the project count as PIs, or can we select leaders within our project (as we do with NSF and typical DoD proposals)?

A: We encourage you to present your center concept and operational model at the whitepaper phase.

Historically, our research centers are organized as shown in Figure 1 above. In general, center/theme leaders are also faculty performers on individual tasks.

• Centers have a single Center Director, with an Assistant Director for technical and/or operations support.

- The Center goal is divided into 3-4 research themes, with a single theme lead. These themes represent the "working groups" for project subsets.
- The Tasks (projects) are grouped by Themes. Tasks have a Task Leader and additional Researchers (Professors) as dictated by the Task scope of work.
- Post-docs and Students are assigned to specific Tasks.

# Q11: Is it permissible for a JUMP 2.0 Center to have an advisory board with members of the Federal Government (e.g., National Laboratories)? How about someone from an application company on such an advisory board that can provide data and context for the challenge application?

A: To avoid any conflicts of interest or getting someone involved who is not from a paying sponsor, we recommend that center leadership include only key professors / academics.

# Q12: I'm working with a few people on a potential team, and was wondering if I can include individuals who have an adjunct appointment at a US university?

A: Yes, an adjunct professor at an accredited US university can be on a center or single-task whitepaper. The adjunct professor would receive additional scrutiny on a case-by-case basis during our full proposal review or during the contract/invoicing phase (after the selection of our six research centers). Either could disqualify the individual but would not disqualify the proposal or selected center. Of course, if the adjunct professor can submit both the whitepaper and full proposal under their US affiliation, that is greatly preferred.

# Q13: With the kind of budgets we have, can we have an engineering staff member to assist with administrations, lab coordination, etc.?

A: Yes, put your best proposal forward. The only restriction we impose is that each center must have a clear, single, center director that is located at the prime university. Beyond that, you are able to staff the center with an assistant director, an administrative assistant, lab coordinator, etc. to maximize the impact and innovation of the research center.

# Q14: Background IP. Has anything changed from the last program? Do we need to disclose IP from previous SRC programs?

A: We have not modified the IP terms in any way.

We are asking all proposers for diligence in disclosing relevant background IP, both from work within SRC-sponsored research programs as well as IP that was generated via other funding mechanisms. During the

initial whitepaper phase, we are asking PIs to identify any blocking pre-existing intellectual property on which new results will be based. However, a full background IP disclosure is not required until submitted as part of the invited, full center proposals.

#### Q15: How do you envision the overlap between the system and technology research centers?

A: System centers should articulate an ambitious grand challenge and deliver innovation and critical technology insight in their application space. Technology Centers should focus on foundational breakthroughs and benchmarking across a wider set of applications and workloads and provide insight to inform system centers' research and design choices. Opportunities for collaboration will develop organically as the Center and Program matures. The Research Needs document provides suggestions for areas of potential collaboration.

# Q16: There are two types of whitepapers – center whitepapers and single task whitepapers. What formal responses will each of these whitepapers receive?

A: There are four possible responses following the whitepaper review:

#### **Center Whitepapers**

- A center whitepaper that is invited to submit a full center proposal. Minority.
- A center whitepaper that is not invited to submit a full center proposal. Majority.

#### Single Task Whitepapers

- A single task whitepaper that is "highly regarded" by our Science Advisory Board (SAB). Minority.
- A single task whitepaper that did not achieve the status of "highly regarded" by our Science Advisory Board (SAB). **Majority.**

Center whitepapers that are invited to submit a full center proposal will get a list of "highly regarded" single task whitepapers / PIs for their given theme. This will be contact information only.

"Highly regarded" single task whitepapers will be provided with a list of the center whitepapers / center directors in their given theme that have been asked to submit a full center proposal. This will be contact information only.

At this point, organic teaming that enriches the quality of the requested full center proposal may occur. Again, there is no funding available for "highly regarded" single task whitepapers that are not taken into a winning full center proposal submission.

#### Q16(b): Are the recommendations by the SAB for the single-task whitepapers binding?

A(b): No. The centers that have been asked to submit a full center proposal are under no obligation to incorporate any single task whitepapers. We are opening up the research announcement via this single task whitepaper mechanism because we believe we can encourage researchers who may have an innovative individual idea but may lack connectivity into one of the proposed Center whitepapers and that these new teaming opportunities can greatly enhance the overall research agenda.

There will be more good ideas available than dollars available.

Q16(c): If I submit a whitepaper now and it is not incorporated into the JUMP 2.0 research initiative, will it be OK to submit it again at a later date against?

A(c): Yes. There will be more good ideas than dollars available. We will also look to provide feedback to whitepapers where constructive feedback can be provided such that PIs might improve their whitepaper for future research calls.

### Q17: How many PIs can be listed on a single-task whitepaper before there is no chance of that single-task whitepaper being successful?

A: Our read is that single task whitepapers that have more than 2-3 PIs stand a significantly higher chance of being unsuccessful at incorporation into a full center proposal.

In case it isn't already clear, we highly encourage all PIs to try to submit ideas that are incorporated into a center whitepaper!

Only center whitepapers will be invited to submit a full center proposal. Only full center proposals will be considered for funding.

## Q18: Is there a limit on how many white papers I can be a co-PI on? Does this limit differ if the whitepapers are for the same or a different theme?

A: There is no specific limit, but please don't submit the same work twice. **See Q6** for multiple submissions; we would use the same criteria for PIs and co-PIs.

Q19: A – Is Commercially licensed software utilized in SRC / JUMP work considered background IP and B - We would principally focus on using the software to guide experiments. For the work I envision writing some scripted input decks to the existing commercial packages. Do we have to provide such input decks to the SRC companies?

A:

- A 3<sup>rd</sup>-party IP is not considered background, though please do mention as a dependency in your proposal.
- B Foreground IP supported by the research would be included as a member deliverable, including new scripts and libraries.

#### Q20: Are you able to give a bit more detail on what is required for any in kind support?

A: University cost share is encouraged to magnify the impact of the Center (and especially to grow the graduate student performers), but we don't provide specific guidance on it.

# Q21: Can universities in Canada participate with Co-PIs and receive direct funding from the center program?

A: Canadian universities cannot participate, though faculty with adjunct status can.

Q22: Is there anywhere to locate the terms and condition so the award if the PI was to be chosen? I want to check to make sure our college can agree to the terms before the PI commits to the proposal.

A: This information is available on our website – note links below:

IP - https://www.src.org/about/contracts-ip/#ip

BIP - <a href="https://www.src.org/about/contracts-ip/#bip">https://www.src.org/about/contracts-ip/#bip</a>

#### Q23: Do references count in the 6 page limit for a Center White Paper submission?

A: No, extra pages are allowed for references. The same applies for a Single Task White Paper submission.

Q24: Is it acceptable that two different center proposals for the same Theme are proposed from the same institution (i.e. two different PIs from the institution submit and lead two different center proposals for the same theme).

A: Yes, this is acceptable as long as the teams and proposals are distinct.