



Semiconductor
Research
Corporation

SAB F2F Day 2 Intro, April 26, 2023



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Driving Collaborative Innovation

Agenda

- Overview of new code and data submission call
- JUMP 2.0 Member Liaison Structure
- Day 2 Schedule Brief
- Q&A

*Promotion – Please help us celebrate your tech transfers!

If any JUMP/JUMP 2.0 tech is put in a product let SRC know! Same goes for student hires contributing SRC research to a product! Also start buying equipment! I **want** to approve your equipment purchases!

Guidance for Depositing Supporting Code and Data with Pre-Publications

As part of our move to Pillar Science, there is the ability to collect not just the pre-publications PDF's but also arbitrary file formats (.mp4, .ppt, etc.) as well. This new capability enables a new way for SRC programs to facilitate technology transfer to our sponsors.

Going forward, we will be requiring that all code and supporting data below a certain size threshold to reproduce a pre-publication also be uploaded to Pillar Science.

•SRC's reasons for doing this are:

1. **To more fully document the research output of our programs to demonstrate to our sponsors the breadth and depth of the funded work**
2. The full value of code and data is not often found with its original author but when used across a wider scientific community like our sponsors
3. By having better data and code visibility in our programs, our sponsors will have a better understanding how to connect with researchers

Historically, there has been concern amongst researchers that the code and the data are not "camera ready" for distribution at the pre-publication state.

While these concerns are valid, perfect is the enemy of accomplishment.

- SRC seeks to obtain a snapshot of your code at the state it was in when you submitted your publication to the SRC repository.
- If your code and data are not in a state that you would want to post on an open code repository like GitHub, that is acceptable. Our sponsors employ trained professionals who have the experience to handle and interpret idiosyncratic legacy code and documentation.
- SRC would also like the data collected and used to generate publications to be submitted to Pillar Science as well.
- Preferably in a single compressed file in an open format marked with the publication's name followed by data so that it read like this, "[Publication Name]_data.[Open Compressed File Extension]"**.

The submission of data to SRC is a direct ask, although it is a right granted by terms of the sponsored research agreement.

- Contained within that compressed file should be the data used to generate figures, any code developed for that publication as well as any experimental data acquired if the file size is below 10 Mb.**
- If the data file is in a proprietary file format as often happens with analytical instruments, please convert it to an open format before uploading
- If you are not able to convert from proprietary file format to an open file format, please include it in the compressed data file anyway.
- If the data was acquired from an open depository like the UCI Machine Learning Repository, a notification of that along with a dated weblink in a .txt file should be included.



JUMP 2.0 Member Liaison Structure

GC: 1 GC member and 1 GC alternate member

- The GC owns the program and implications for US + like-minded nations
- Often, CTO, Vice President, or Director of Research
- i.e. Could be 1-2 people; Ideal is 2 per company

SAB: Up to 2 SAB members and up to 2 SAB alternate members

- SAB owns the Centers, their goals and results, cross-collaborations, and the hiring of Scholars
- SAB members may attend liaison theme meetings by signing up on Pillar at the theme/project (task) level
- Often, Director or high-level manager of Research and/or Technical Fellow
- i.e. Could be 1-4 people; Ideal is 2-3 per company
- Must have a single “Primary member” that owns voting, when required

Liaisons: Task liaison seats are allocated based on JUMP 2.0 membership dues

- Improve the relevance of the research results and create technology transfer
- Task liaisons have complete access to the entire Catalog (all Centers, all tasks). i.e. no access limits
- Generally, best results come from close mapping to 2-4 tasks or becoming a Center-level advocate
- Roles, experience, areas of expertise, and interests vary widely

Followers: A sponsoring company may have as many followers as they want

- Followers may sign up on Pillar, view research, and scholars and attend annual reviews and Techcon.
- Followers **are not** allowed at liaison theme meetings or GC/SAB meetings.

Hiring: 2 human resource / hiring champions per company

- Connection to SRC Scholars. Responsible for hiring BS, MS, Ph.D., and Post-Docs into your company.
- Must have 2 points of connection as this is a community with higher turnover



SRC Liaison Program Creates Industry Insight for Academics

Develop the Workforce

- Provide relevant guidance for industry challenges
- **Help prepare students to enter industry or pursue future academics**

Contribute to Research

- **Encourage technology exchange between university and industry**
- Bridge the conventional gap between academia and industry

Academia Contributes to Industry

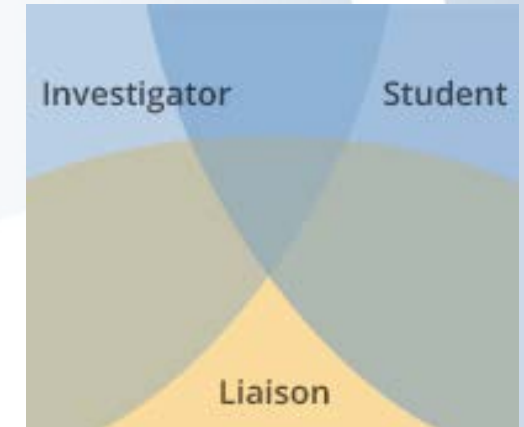
- Provide an out of the box approach to current problems which enhance industry research and development enables a differentiated product for the market place
- Provide an outside perspective adding diversity to the thought process of how best to attack a challenge

Insight and Access New Technology

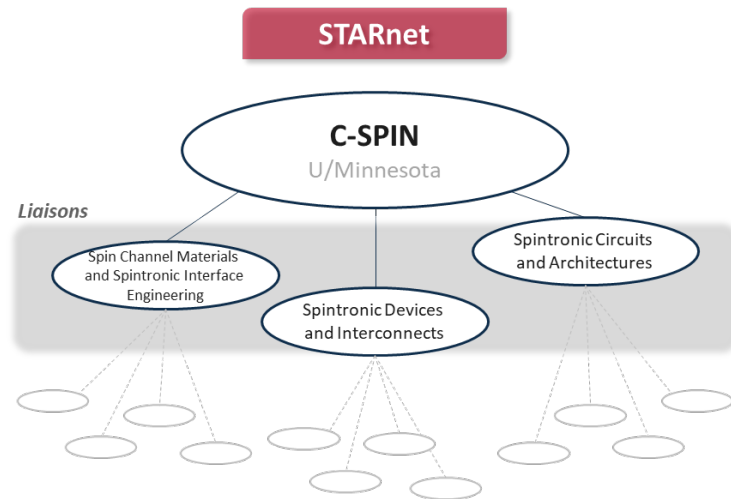
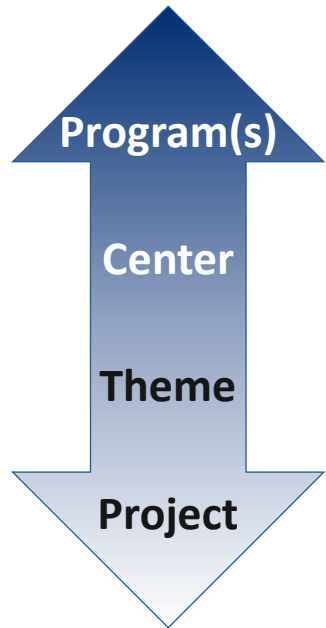
- **Gain valuable insights into problems and solutions that will ultimately impact industry competitiveness**
- Provide an effective way to deliver actionable research results directly into their companies

Identify the Best

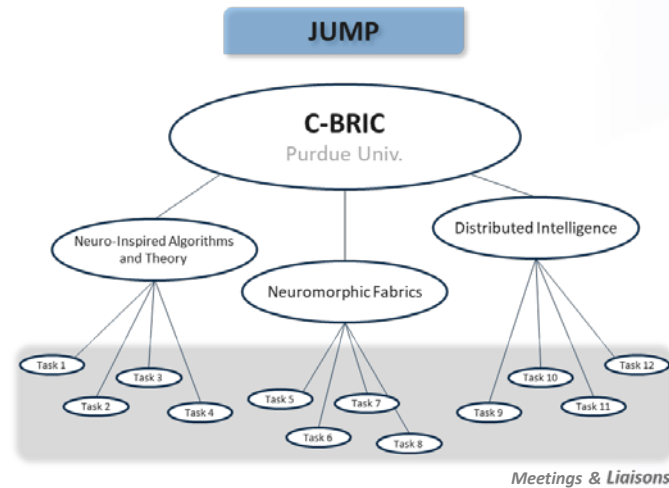
- Identify the most compelling research from current and recent research



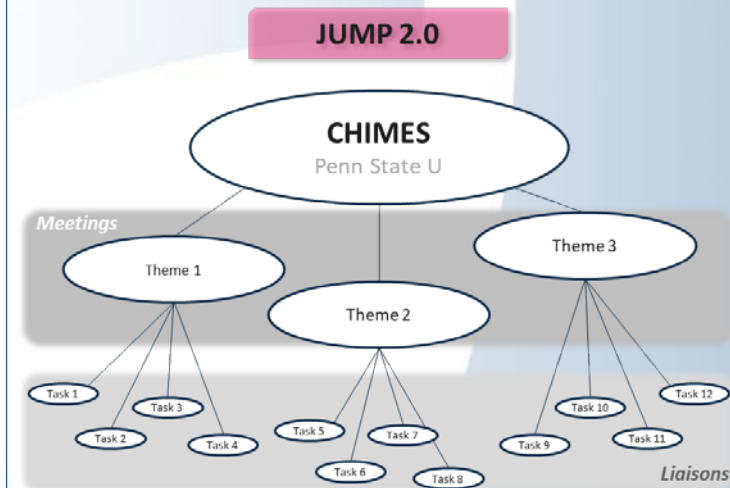
Task Liaison Engagement in DARPA Centers



No tasks; only annual review



Tasks; Task Liaison meetings



Tasks and Task Liaisons;
Theme level meetings

SRC's goal is to balance meaningful collisions (frequency) with task and Center level clarity

Theme Level Meetings

- **Centers must have theme level meetings, inviting all JUMP 2.0 task liaisons (in the web catalog!) in tasks from that Center's theme.**
 - Frequency = every 4-8 weeks. We recommend 4-6 weeks based on duration of meeting (1 hr vs. 1.5 hrs).
 - Meetings are managed by the Centers, not on the SRC calendar. Pick a meeting owner and send an outlook invite.
 - Recommend you poll early liaisons for a good day / time and then stick to a routine if working (for example, every 2nd Monday of the month at XX time).
 - Do not record the meeting as sensitive information and it will reduce people's interest in sharing / collaborating.
 - No meetings between Dec 15 – Jan 15.
- Do:
 - Rotate your tasks and scholars through the lineup, projecting calendar clearly for coming meetings.
 - Add Center and theme level context to the task-level discussion.
 - Create a collaborative environment that showcases, grows, and supports the students.
 - Get to know all member companies. Ask what they are interested in? Ask member companies to help you!
- **Engagement in theme level meetings is a prerequisite for closer task-level interactions (should / can be multi-party) or “next level” private (1:1) discussions that amplify yet remain aligned to the SAB-approved scope.**
 - Please notify SRC if member companies are seeking significant private meetings that are consuming academic time.

FAQs

1. Is it ok to invite non-JUMP 2.0 participants to our theme meetings?
 - **NO.** Focus on the JUMP 2.0 company liaisons and creating a vibrant R&D community with those people. JUMP 2.0 Members are clearly listed here.
2. I know somebody at a JUMP 2.0 member company that is interested in our work but is not an official JUMP 2.0 liaison. Can they join the theme meeting?
 - That is great! Encourage them to talk to their company's SAB member and become an official JUMP 2.0 liaison.
 - Once they are a JUMP 2.0 liaison, they can attend the theme meeting(s).
3. An official liaison can't make the theme meeting, can we record it and make that available?
 - **NO.** Theme meetings should not be recorded. The meeting material can be shared offline with the task liaison, sharing whatever the faculty member feels is appropriate. Recording the meeting is too much overhead and will greatly reduce the (multi-party) collaborative nature of the meeting. It is a benefit for those that are able to attend.
 - That meeting material will find its way into SRC posters / publications, eWorkshops, and annual reviews, in time.

SAB F2F Day 2 – Schedule

Wednesday, April 26, 2023

8:45 - 9:00 am	Welcome Day 2	Adam Knapp / SRC
9:00 - 9:20 am	PRISM Plan of Action from Center Director	Nam Sung Kim / UIUC
9:20 - 10:00 am	PRISM Panel with Director(s) and Theme Leaders with Q&A	Nam Sung Kim / UIUC Shimeng Yu / Georgia Tech Vijay Narayanan / Penn State Ada Gavrilovska / Georgia Tech
10:00 - 10:30 am	Coffee Break and Informal Discussions	
10:30 - 10:50 am	CHIMES Plan of Action from Center Director	Madhavan Swaminathan / Penn State
10:50 - 11:30 am	CHIMES Panel with Director(s) and Theme Leaders with Q&A	Madhavan Swaminathan / Penn State Muhannad Bakir / Georgia Tech Volker Sorger / George Washington U Shimeng Yu / Georgia Tech
11:30 - 11:50 am	SUPREME Plan of Action from Center Director	Grace / Cornell
11:50 am - 12:30 pm	SUPREME Panel with Director(s) and Theme Leaders with Q&A	Grace Xing / Cornell Tomas Palacios / MIT Feliciano Giustino / UT Austin Asif Khan / Georgia Tech
12:30 - 1:30 pm	Lunch	
Parallel Breakouts		
1:30 - 2:30 pm	System Centers (ACE, COCOSYS, CUBIC and COGNISENSE)	Moderator: Adam Knapp / SRC Room: TBD
	Technology Centers (PRISM, CHIMES and SUPREME)	Moderator: Roman Caudillo / SRC Room: TBD
2:30 - 3:30 pm	SAB Meeting (industry only)	Moderator: Roman Caudillo / SRC Room: TBD
	Center Directors and Center Leadership (academics only)	Moderator: Adam Knapp / SRC Room: TBD
3:30 - 4:00 pm	SAB and Center Leadership Report Out from closed sessions	
4:00 pm	Adjourn	

