



Semiconductor
Research
Corporation

SAB F2F Day 2 Intro, April 25, 2024



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JUMP 2.0 Program Manager

Driving Collaborative Innovation

SRC BoD Request: Sponsors Want Greater Insight into SRC Programs

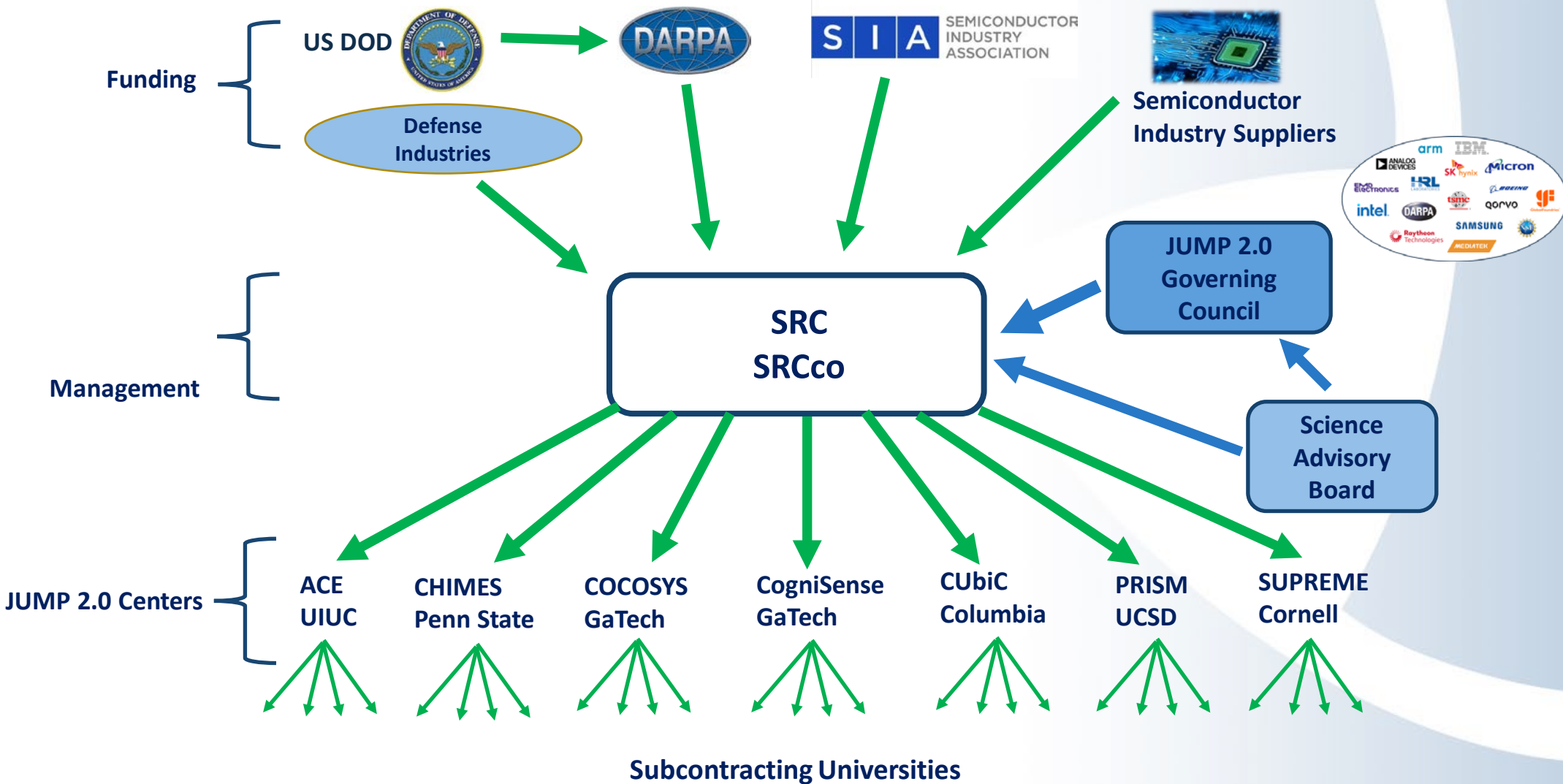
- Sponsors have requested more insight into SRC KPIs and liaison interactions with SRC programs
- Want to see rejection rates for KPIs ascribed to their company and name of liaison objecting/approving and other metrics of liaison-program interaction
- They want an average response and the information for their own company as well as things like e-Workshop attendance
- Goal is to be able to better sell their sponsorship up their respective company's management chain

Proposed Changes to KPI verification procedures

- Using CoCoSys as a test case we have a new objection system
- We ask directly by mass e-mailing for liaisons to look over the KPI forms and object if they disagree with a KPI attributed to them/their company
- No company may object to another company's TT
- In a multi-company TT, only objecting company is removed
- Summary and their company's statistics are sent to each SAB member

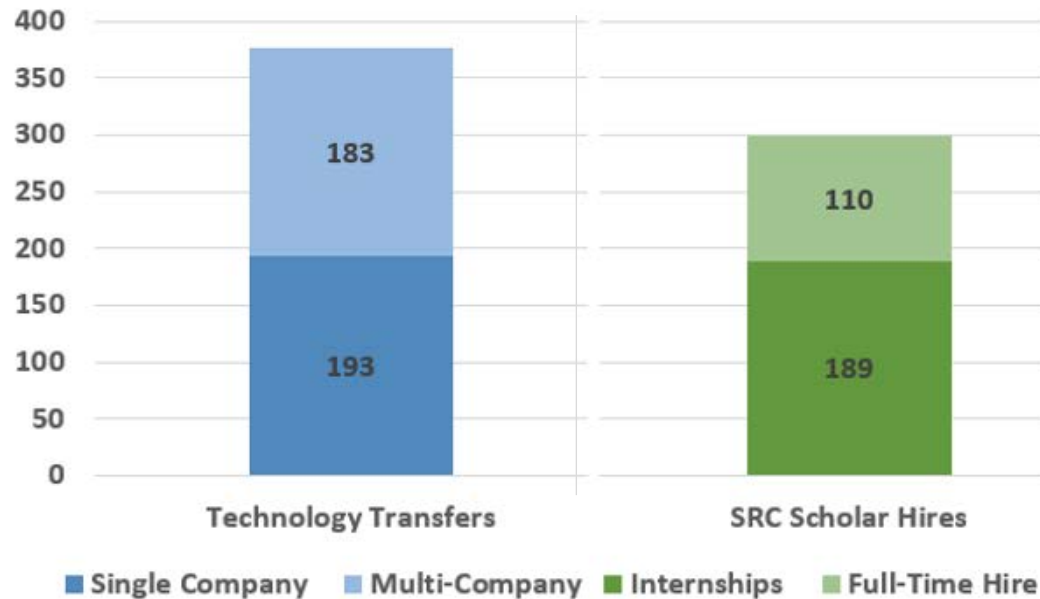
A Rationale for Key Performance Indicators (KPIs)

Why is KPI reporting needed? JUMP 2.0 Organizational Structure



Sponsor Value Creation in SRC Research Program

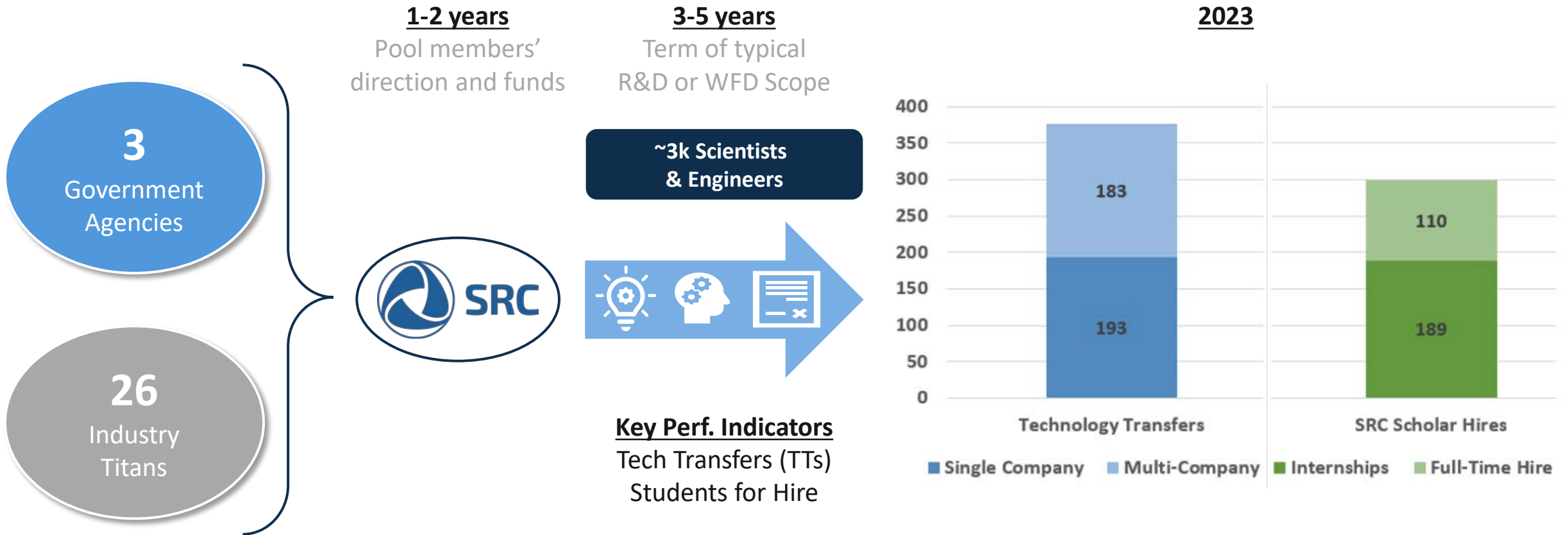
2023 SRC-Wide (JUMP 1&2/GRC)



Key Performance Indicators (KPIs) are used to quantify technology transfer, workforce development, and relationship building in SRC programs. They are the source of these graphs.

- **Value to members from SRC-sponsored research comes in 2 forms definite and indefinite**
 - Definite – Student workforce development, Research Data, Relationships
 - Indefinite – Research output/advances, Generated IP, Technology transfer
- **Strength of research guidance comes from joint effort amongst sponsors in guidance and PIs in research**
- Different sponsors have different approaches to program and different internal objectives
 - A good TT for one sponsor may be uninteresting for another.
 - There can be disagreement about timescale and technical direction which PMs referee.

Collaborative R&D Generates Tech Transfers and Hires



In 2023, SRC recorded 376 Technology Transfers and 299 Hires into Member Companies



Key Performance Indicators (KPI) Process & Technology Transfer - Refresher



Blank KPI forms added to Pillar Science



PIs complete KPI forms while preparing Annual Review



SRC Program Managers perform quality control review



Industry reviews tech transfers from KPIs, verifies to SRC



Final Tech Transfer counts summarized in annual report

KPIs have been moved to Pillar Science collaborative workspace

Benefits:

- One-stop shop
- KPI process is visible to SRC members
- Quick recognition of meaningful Technology Transfers




KPI Category Breakdowns

What is Tech Transfer? What is the KPI form for?

File Home Insert Draw Page Layout Formulas Data Review View Automate Help			
Clipboard Font Alignment Number Styles			
A		B	
Project ID		Project Leader	
Your Goals		Project Title:	
Your Member Interactions Intel, TI, etc.)			
Most Valuable (max 5 pts/each row) - Enter information for current project year			
Demonstrate Viability	Accomplish key program goal; Proof(s) of concept	Problem Addressing: Novel Solution: Impact vs. SoTA:	
Set a New Direction – Internal to Member or Externally	Knowledge transfer with examples: Start-up adoption of Arch/SW, Start-up Pathfinding or VC investment, new internal projects at Member (including new products) or decisions to drop existing products/technology/projects; Driving more diverse teams / student base	Problem Addressing: Novel Solution: Impact vs. SoTA:	
Identified Showstopper/ or Mitigation of High Risk	Description and impact; Potential Outcome, Success, or Failure	Problem Addressing: Novel Solution: Impact vs. SoTA:	
Technology Transfers: Adoption at a Member, including government agencies	Code, data, design sets and bigger technology transfers; usage/citation of SRC-sponsored publications by papers published by members		
Fulltime Hire into Member	Hires & names of hires into Member w/ associated diversity info (be sure to include Company Names and start dates)		
Moderately Valuable (max 3 pts/each row) - Enter information for current project year			
Transfer from Member to Academia or Start-up	External use of technology or curriculum		
Member Awareness / Collaborations	Increased number of liaisons that are engaged in project: name and engagement description; Recognizing key liaisons with Mahboob Khan nominations		
Cross-Task Awareness / Collaborations	Evidence of rich exchange, co-authorship, or cross-tasks integrator efforts between PIs		
Ecosystem Development	#Software releases, setting conference agenda, other evidence of meaningful influence		


- The KPI form is an attempt to capture tech transfer for a SRC research task
- Tech transfer is the creation and dissemination of inventions and knowledge in the program community
- Every Task needs to have an individual KPI form so that TT for that task may be captured.
- At a minimum, a KPI should have its Project ID, Leader, and Leader's Uni filled out. A Project Title is nice to have too!

KPI Form – The Headings

 Semiconductor Research Corporation			Project ID	Project Leader	Affiliation (Univ)	
	Your Goals		Project Title:	Dr.	Univ of	Your Score
Most Valuable (max 5 pts/each row) - Enter information for current project year				Your Member Interactions (e.g. Intel, TI, etc.)	Your Member Interactions - Name of Mentor and Company	Your Score
Demonstrate Viability	Accomplish key program goal; Proof(s) of concept	Problem Addressing:				
		Novel Solution:				
		Impact vs. SoTA:				
Set a New Direction – Internal to Member or Externally	Knowledge transfer with examples: Start-up adoption of Arch/SW, Start-up Pathfinding or VC investment, new internal projects at Member (including new products) or decisions to drop existing products/technology/projects; Driving more diverse teams / student base	Problem Addressing:				
		Novel Solution:				
		Impact vs. SoTA:				
Identified Showstopper/ or Mitigation of High Risk	Description and impact; Potential Outcome, Success, or Failure	Problem Addressing:				
		Novel Solution:				
		Impact vs. SoTA:				
Technology Transfers: Adoption at a Member, including government agencies	Code, data, design sets and bigger technology transfers; usage/citation of SRC-sponsored publications by papers published by members					
Fulltime Hire into Member	Hires & names of hires into Member w/ associated diversity info (be sure to include Company Names and start dates)					

- Your Goals – The items in this column describe the specific actions like “Accomplish key program goal...” that satisfy goal like “Demonstrate Viability”
- Project Column– This column is not uniformly used, but it is column where information specific to the project is put
- Member Interactions – In this column state the member companies directly impacted by the goal of the row
- Name of Mentor and Company – In this column include the liaison(s) and their employer(s) that facilitated the row’s goal
- Your Score – You get a score for each row: 0 if not addressed. Max value if goal is correctly addressed.
- If liaisons and companies are not given for rows like “Demonstrate Viability,” the tech transfer is considered void and not counted. For rows like “Publications” and “TECHCON,” it is fine not to include them.

KPI Form – Most Valuable (max 5 pts/row)

 Semiconductor Research Corporation		Project ID
		Project Title:
Your Goals		
Most Valuable (max 5 pts/each row) - Enter information for current project year		
Demonstrate Viability	Accomplish key program goal; Proof(s) of concept	Problem Addressing: Novel Solution: Impact vs. SotA:
Set a New Direction – Internal to Member or Externally	Knowledge transfer with examples: Start-up adoption of Arch/SW, Start-up Pathfinding or VC investment, new internal projects at Member (including new products) or decisions to drop existing products/technology/projects; Driving more diverse teams / student base	Problem Addressing: Novel Solution: Impact vs. SotA:
Identified Showstopper/ or Mitigation of High Risk	Description and impact; Potential Outcome, Success, or Failure	Problem Addressing: Novel Solution: Impact vs. SotA:
Technology Transfers: Adoption at a Member, including government agencies	Code, data, design sets and bigger technology transfers; usage/citation of SRC-sponsored publications by papers published by members	
Fulltime Hire into Member	Hires & names of hires into Member w/ associated diversity info (be sure to include Company Names and start dates)	

- Demonstrate Viability – Did you accomplish key project goals via proof of concept?
- Set a New Direction – Knowledge transfer to a member with proof. Who were the liaisons and companies involved?
- Identified a Showstopper – Did you demonstrate a high value negative result that sponsors found useful?
- Technology Transfers – What technology was transferred to sponsors as code/data/design/citations of sponsored work?
- Fulltime Hire into Member – Student names, companies, and start dates of students hired to sponsors.

KPI Form – Moderately Valuable (max 3 pts/row)

Moderately Valuable (max 3 pts/each row) - Enter information for current project year		
Transfer from Member to Academia or Start-up	External use of technology or curriculum	
Member Awareness / Collaborations	Increased number of liaisons that are engaged in project: name and engagement description; Recognizing key liaisons with Mahboob Khan nominations	
Cross-Task Awareness / Collaborations	Evidence of rich exchange, co-authorship, or cross-tasks integrator efforts between PIs	
Ecosystem Development	#Software releases, setting conference agenda, other evidence of meaningful influence	
Intern Hire into Member	#Interns w/ associated diversity info (Be sure to include student's name, company name, and internship dates)	

- Transfer from Member to Academia – Did members transfer technology/know-how into the project?
- Member Awareness/Collaborations – Name of liaisons & companies interested in project; describe how they are engaging. Have new liaisons signed up to follow the project in the past year?
- Cross-Task Awareness/Collaborations – Provide evidence for cross-task/theme/center engagement through co-authorship, integration, know-how transfer between PIs and students e.g. seed projects.
- Ecosystem Development – Software releases, conference agenda, and influence of this task/theme/center/program
- Intern Hire to Member – Provide student name, company, and internship dates. A student may have multiple internships.

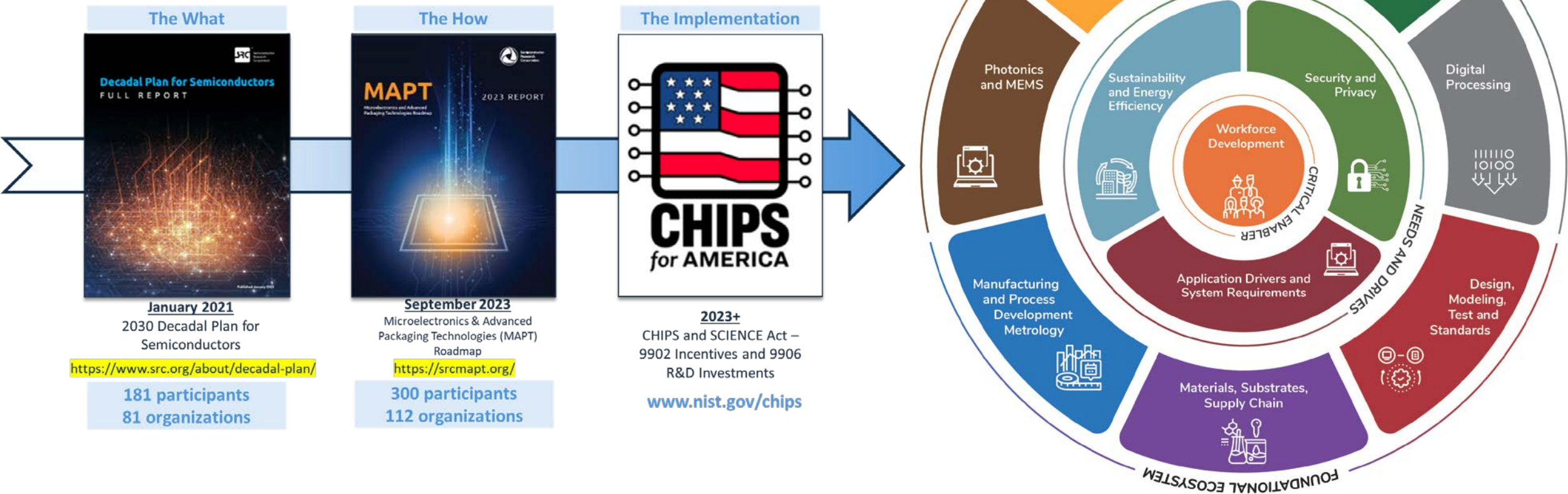
KPI Form – Valuable (max 1 pt/row)

Valuable (max 1 pt/each row) - Enter information for current project year only		
Students	#students involved in the task, graduated; Evidence of increasingly diverse teams (be sure to include student's name and graduation date if applicable)	
Policy Making/Standards	Name of standard influenced or policy	
Patents	#Patent Filings, #Patents Issued, Patent #	
Publications	Publication list and impact; Comment if received special recognitions; Co-author with member/liaison or another task is noteworthy	
Industry Partner Alliance or Investment	New collaborations, programs, or grants driven as a direct result of research, people, and collaborations; Cite partners, VC, Start-up / Pathfinding, or External Partner amplification	
Participation at TECHCON	#Submissions of TECHCON abstracts; #Presentations at TECHCON	

- Students – What students are involved on this project? Please give names and (estimated) grad date.
- Policy Making/Standards – Has this JUMP 2.0 project lead to policy or standards-making involvement?
- Publications – Have you published for this project? Acts as a check on submissions.
- Industry Partner Alliance or Investment – Has this JUMP 2.0 project lead to other industry-driven research opportunities?
- TECHCON Participation – Submissions to attend TECHCON. Acts as a check on submissions. (Plug for TECHCON 24)

Microelectronics and Advanced Packaging Technologies (MAPT) Roadmap

SRC's Plan – A Mixed Signal World based on 3D HI



Help Improve JUMP 2.0 – We Want Your Thoughts!

Comments?
Suggestions?

We want to hear from you!



Please help us celebrate your tech transfers and learn more about the MAPT roadmap!

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!

<https://srcmapt.org/>



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SRC

Day 2 Agenda

Thursday, April 25, 2024		
8:45 - 9:00 am	Welcome Day 2	Adam Knapp, SRC
9:00 - 10:20 am	System Centers Panel w/ Q&A (ACE, COCOSYS, CUBIC and COGNISENSE)	Moderator: TBD (Center Director)
10:30 - 10:50 AM	COFFEE BREAK AND INFORMAL DISCUSSIONS	
11:00 am - 12:20 pm	Technology Centers Panel w/ Q&A (PRISM, CHIMES and SUPREME)	Moderator: TBD (Center Director)
12:20 - 1:20 PM	LUNCH	
1:30 - 2:30 pm	SAB meeting <i>Industry Only</i>	Moderator: Roman Caudillo
	Center Directors and Center Leadership meeting <i>Academics Only</i>	Moderator: Adam Knapp
2:30 - 3:30 pm	SAB and Centers Come Back Together and Report Out any items from their closed sessions	Moderators: Roman and Adam
Adjourn		

