



Applied Research Institute

Brooke Pyne, EVP Innovation and Strategy

Brett Hamilton, SVP, Microelectronics & Advanced Technology Strategy

Jalen Rollins, Innovation Visualization Coordinator

Matt Burkett, Director of Innovation Pathways

Courtney Baker, Innovation Voucher Program Manager

Who is

ARI

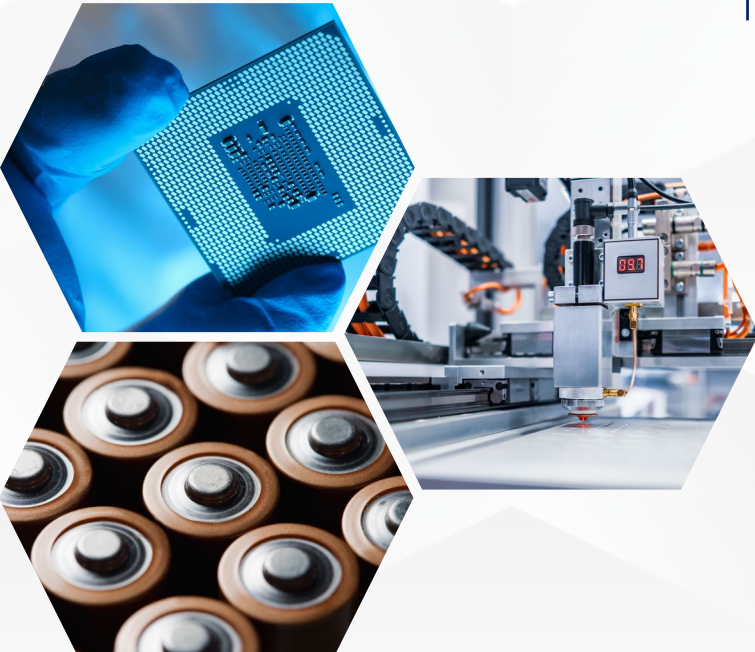
Mission

We catalyze opportunities that enhance national security and drive economic prosperity.

Catalyze Opportunities: Create or facilitate opportunities for our partners and stakeholders

Enhance National Security: Security and defense of our state and its economy

Drive Economic Prosperity: Foster a competitive culture, create jobs and growth



*Neutral non-profit
established in
2017 to foster
innovation*



*Innovation orchestrator
that fosters collaboration
and executes through
innovative thought
leadership*



*Nationally known
leaders that
revolutionize and
disrupt innovation*

STIMULATING INNOVATION IN STRATEGIC SECTORS TO CREATE THE ECONOMY WE WANT

PUBLIC PRIVATE PARTNERSHIPS



Manufacturing 4.0
Expected to grow 13.4% annually through 2030



Future Mobility
#2 GDP with Statewide Network of OEMs

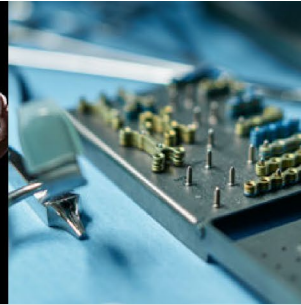


Life Sciences
Contributes \$85B to State Economy

INDIANA BIOSCIENCES RESEARCH INSTITUTE



Sports Tech
Expected to Grow 17.5% annually through 2026



Semiconductor
Will double to \$1T+ globally by 2030



AgBioScience
Contributes \$39B to State Economy



Cybersecurity & Blockchain
Expected to grow 19.8% annually through 2028



Future Energy
Will double by 2029 and subject of \$8B+ Fed funding



HUBS



CUSTOMER ECOSYSTEMS

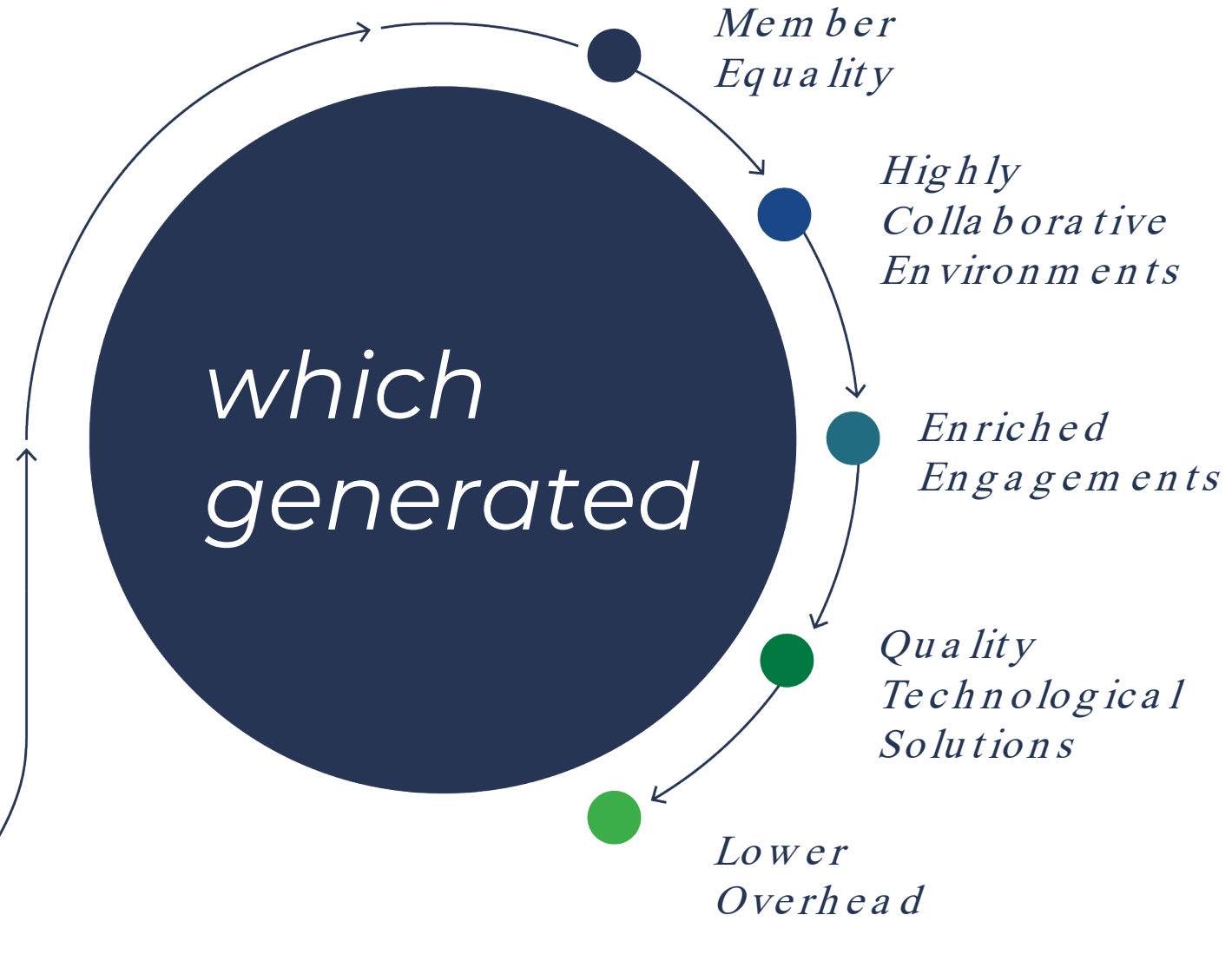
DARPA CONNECT



INNOVATION LESSONS LEARNED

Establishes and advances ecosystems through proven and trusted innovation methodologies that have:

- *Created ecosystem strategies*
- *Accelerated collaboration*
- *Fostered intentional engagements*
- *Coordinated teaming opportunities*
- *Produced quality technical efforts*
- *Facilitated transition planning*
- *Incorporated IP management*





Silicon Crossroads Microelectronics Hub

Brooke Pyne, EVP Innovation and Strategy

Brett Hamilton, SVP, Microelectronics & Advanced Technology Strategy



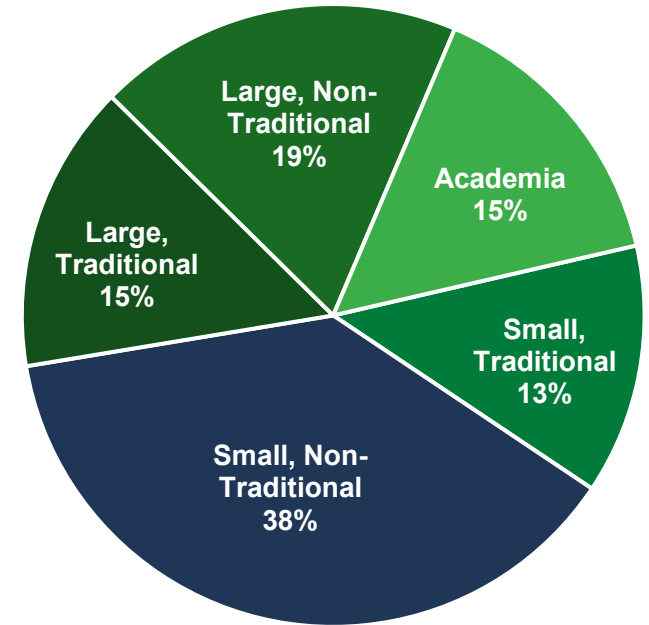
**SILICON CROSSROADS LED BY
APPLIED RESEARCH INSTITUTE, NON-PROFIT**
Indiana/Illinois/Michigan



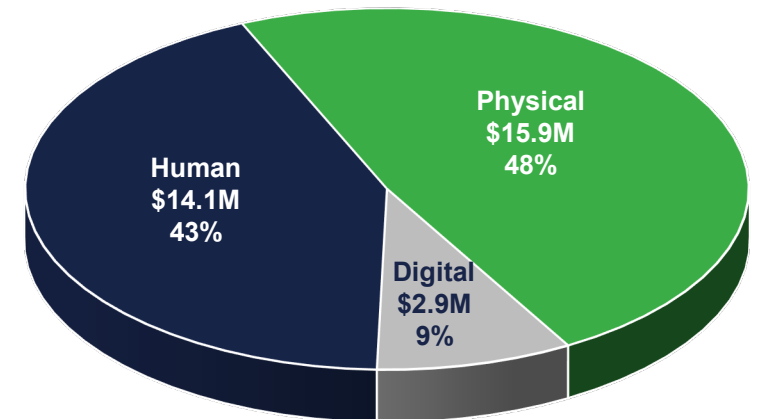
Total Estimated Hub Value

\$10.3+ Billion + Core Member Value

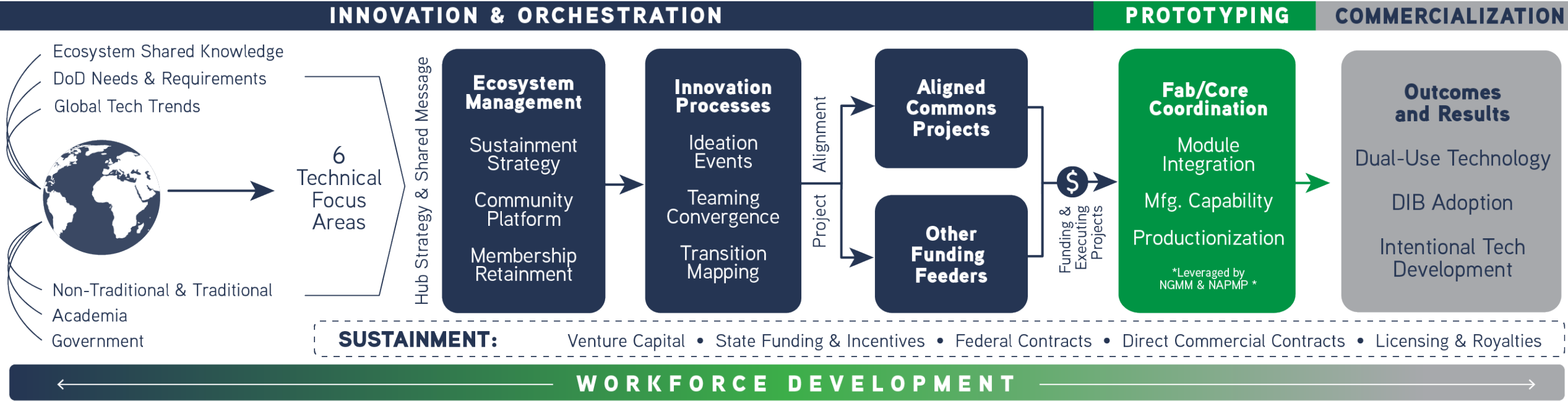
Membership by Category



Financial Breakdown (\$M)



Silicon Crossroads Hub Model



CONNECT WITH US!



Cores



Six Focus Areas



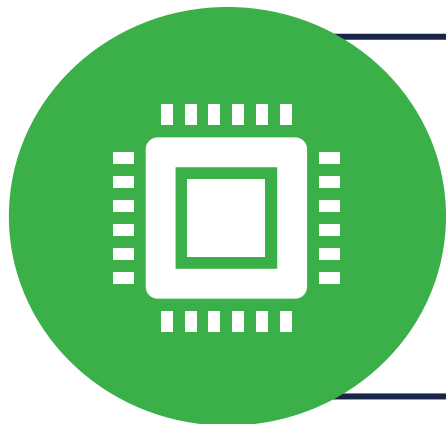
Secure Edge/IoT Computing

Bringing Next-Gen SWAP-S to the Edge



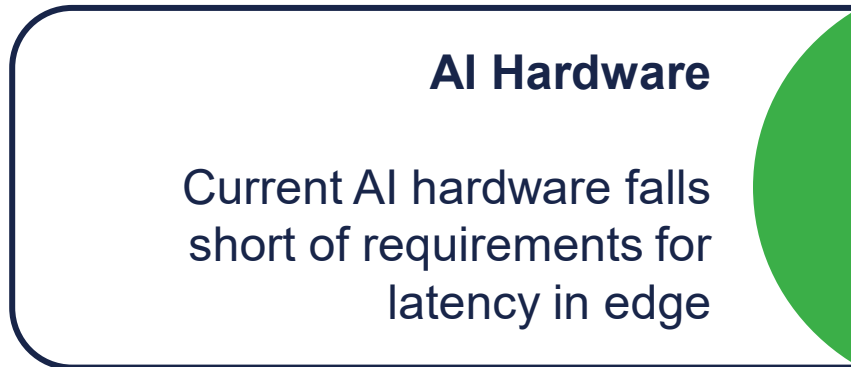
5G/6G Technology

Bringing Disruptive Broadband Capabilities



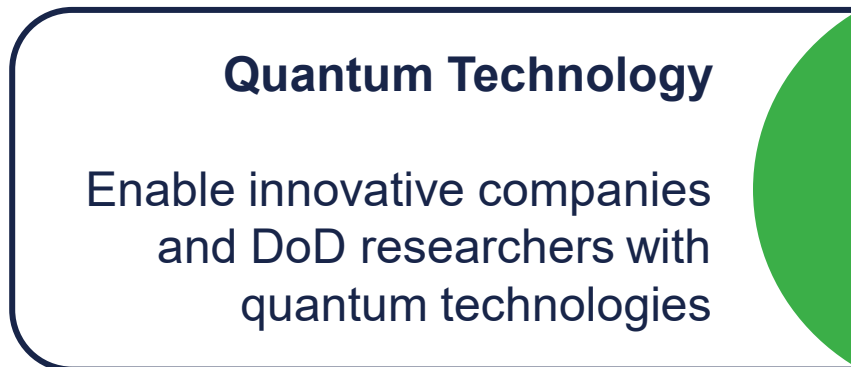
Commercial Leap Ahead

Bringing CMOS + X at wafer scale employing materials engineering



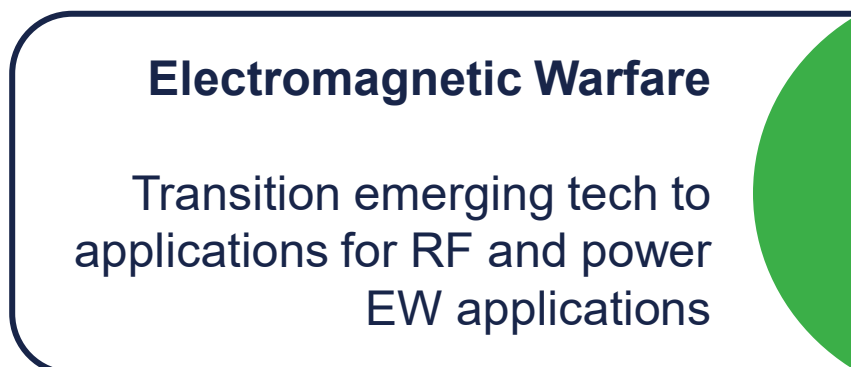
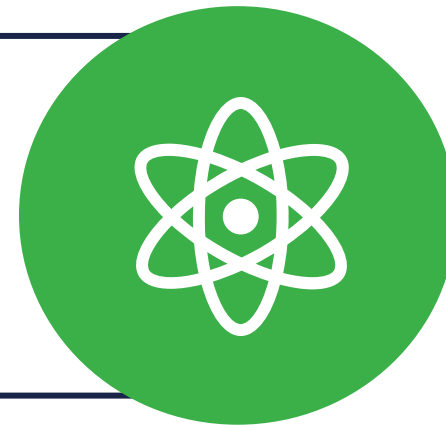
AI Hardware

Current AI hardware falls short of requirements for latency in edge



Quantum Technology

Enable innovative companies and DoD researchers with quantum technologies



Electromagnetic Warfare

Transition emerging tech to applications for RF and power EW applications



SC Workforce Development





Jalen Rollins

Innovation Visualization Coordinator

Matt Burkett

Director of Innovation Pathways

Organizational Overview



NAVAL X

ARI

Midwest Tech Bridge: What We Do

SUPER CONNECTORS

Familiarization with Naval Problems & Stakeholders

Familiarization with Solution Providers

Intentional Connections

Tech Scanning

Energy Storage Summit

STRATEGIC EVENTS

Host Conferences/Events Driven by Naval Needs

Technology Demonstrations & Showcases

Training Events

Participation in Ecosystem Events

Hypersonic Innovation Conference

INNOVATION PIPELINE CHAMPIONS

Assist in identification and engagement of stakeholders within Innovation Pipeline

Guide through Pipeline

Problem Sourcing

Ecosystem Member

NSIC, SBIR Successes, Internal Innovation Effort

STRATEGIC FACILITATION

NavalX trained Human Centered Design Team

Curating problems across NSWC Crane for internal process improvement

NISE Process Facilitated Session

Midwest Tech Bridge: What We Do

SUPER CONNECTORS

Familiarization with Naval Problems & Stakeholders

Familiarization with Solution Providers

Intentional Connections

Tech Scanning

Hyper-AMPD Prize Challenge Joint Hypersonics Transition Office (JHTO)

600+
Companies



**Targeted
Event**



200
Registered



49
Proposals

[Joint Hypersonics Transition Office announces winners in \\$500,000 prize challenge > Naval Sea Systems Command > Article View \(navy.mil\)](#)



Innovation Voucher Grants

Courtney Baker, Innovation Voucher Program Manager

What is an Innovation Voucher?



Provides small businesses with up to \$50,000 to cover the cost of research services from universities or non-profits.

These projects have the goal of helping your business develop innovative new products or services such as:

- *Product development*
- *Simulations*
- *Studies, and more*

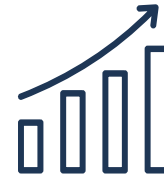
Who is Eligible?



*Indiana based
Companies*



*Employ less
than 150 people*



*Have high growth
potential*



*Be working with an
eligible organization*



*Have a clear project with a
specific deliverable
(to be completed in less than one year)*



INForm Series

Matt Burkett, Director of Innovation Pathways

What is INForm Series?



Designed to bring awareness to new and existing resources in the Indiana innovation ecosystem. Inform engages Indiana small businesses on the unique benefits and opportunities Indiana has to offer. The series hosts collision events with the goal of sharing information, develop programming, resource ideas, and foster investment into Indiana ecosystem

Who is Eligible?

- 1** For profit entities in the U.S.
- 2** Fewer than 500 employees (Most have less than 10 employees)
- 3** Owned or controlled by US citizens or permanent residents

What is ARI's role?



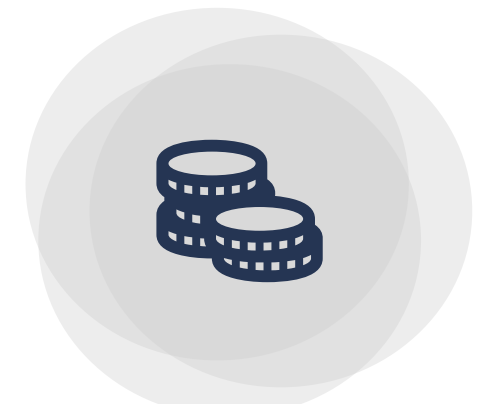
Topic
Identification



Proposal
Assistance



Support
Letters



Phase I & II
Matching
Funds

Pre-Award

Phase I Awards
Establish technical merit

Phase II Awards
Continue R&D Efforts

Phase III Awards
Pursue Commercialization



Contact Us

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