



University Industry
Demonstration Partnership

The National Science Foundation I/UCRC Program

A UIDP Webinar

March 29, 2018 ▪ 1-2pm ET

Moderator:

Tony Boccanfuso, President, UIDP

Presenter:

André Marshall, Program Director, National Science
Foundation



University Industry
Demonstration Partnership

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University Industry
Demonstration Partnership

Upcoming UIDP Webinar

The National Science Foundation Grant Opportunities for Academic Liaison with Industry (GOALI)

A UIDP Webinar

May 3rd, 2018 ▪ 1 PM ET

This webinar discusses the NSF GOALI Proposal and how it can be a powerful vehicle to initiate academic-industry collaboration in any field in science and engineering supported by NSF.

Presenter: Prakash G. Balan, Ph.D, Program Director, NSF

More info at uidp.org or email info@uidp.net



The Industry University Cooperative Research Center Program

Andre Marshall, awmarsha@nsf.gov

Program Director, National Science Foundation

March 29, 2018



Overview

- National Science **Foundation**
- IUCRC **Program**
- IUCRC **Center**



National Science Foundation

Vision | Impact

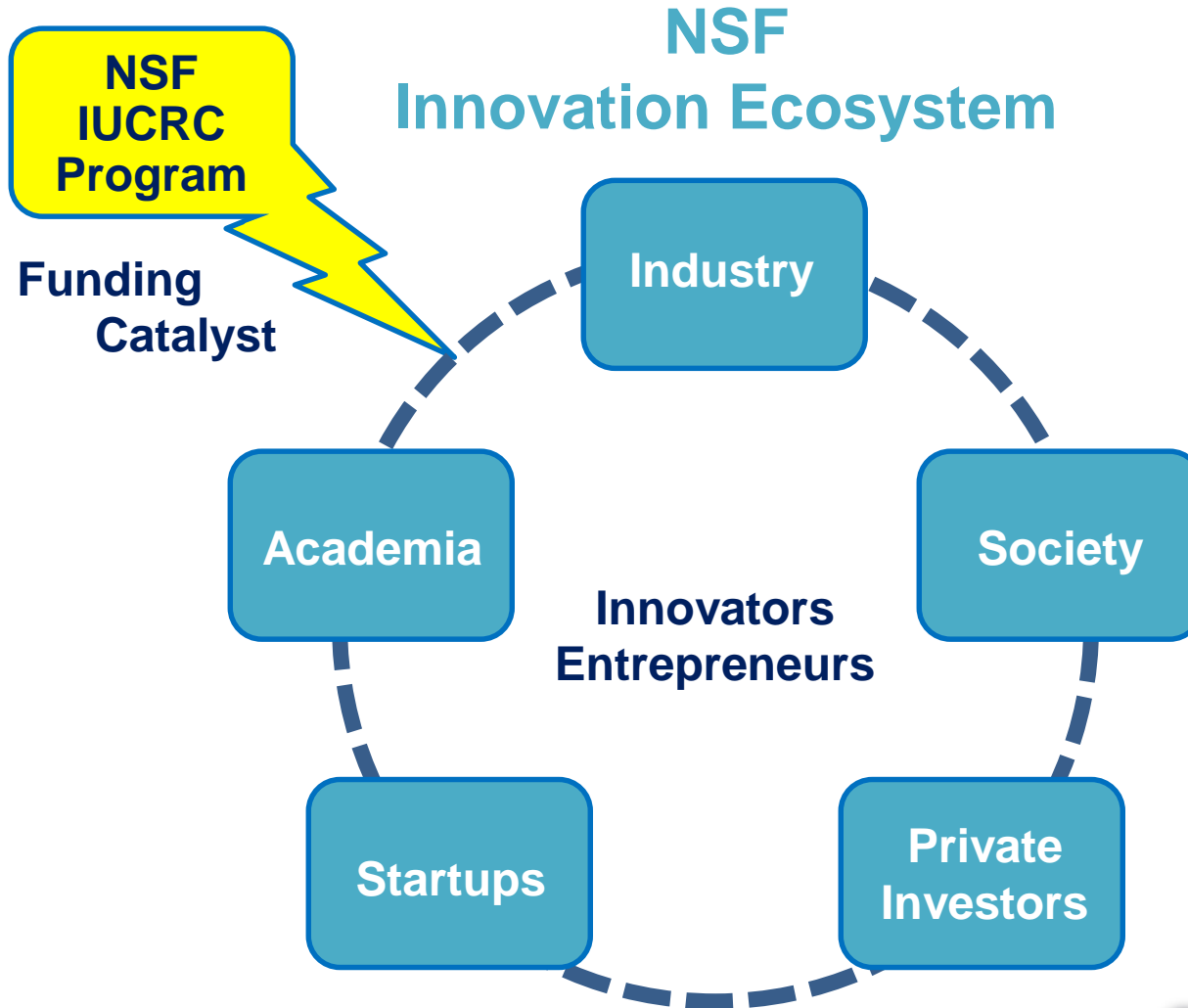
NSF envisions a nation that **creates and exploits** new concepts in **science and engineering** and provides **global leadership** in research and education

- ~ \$7.5B Budget
- 220+ Nobel Laureates supported
- Overall: 350,000 researchers, postdoctoral fellows, trainees, teachers, and students supported
- ~ 400 startups/small businesses funded each year



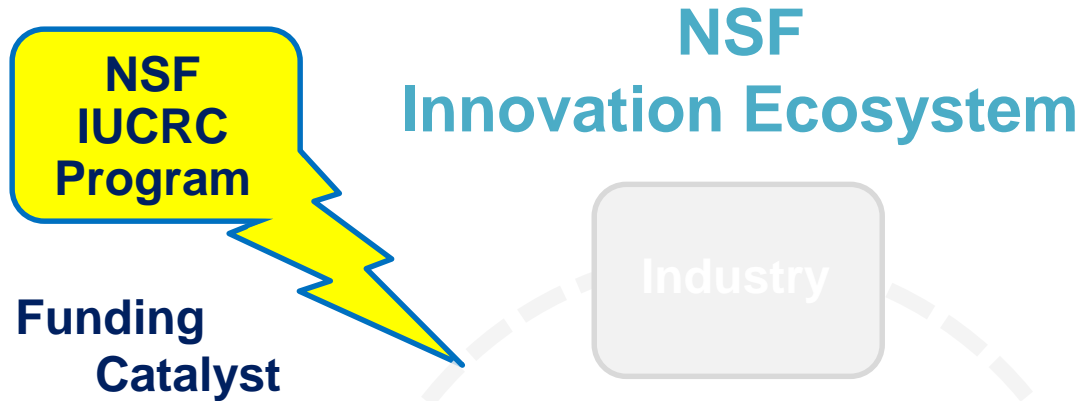
National Science Foundation

NSF Innovation Role



National Science Foundation

NSF Innovation Role



The IUCRC program provides seed money to multiple universities to work together and conduct pre-competitive IP R&D that is of interest to companies who pay a fee to participate.

IUCRC Program

Objective

“Determine effective ways of **stimulating non-Federal Investment** in R&D and of Improving the **application of R&D results.**”

President’s message to the Congress on S&T, March 16, 1972

45 Years of Building Research and Innovation Capacity

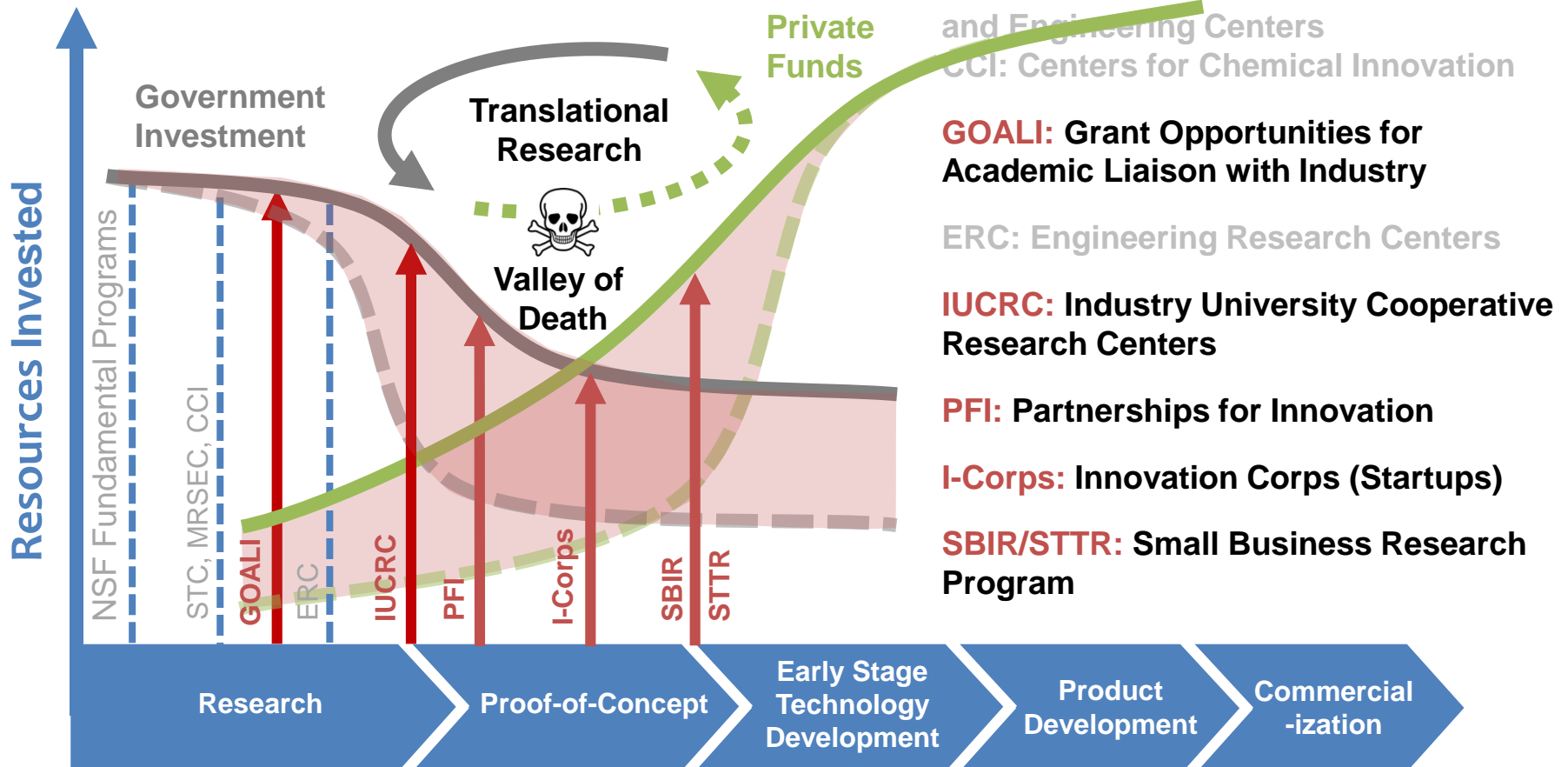
- First Center Proposals Received in 1972
- First “Experimental” Awards Made in 1973

*Cooperatively Defined and Shared, Sector
Precompetitive Research*



IUCRC Program

Approach



Technology Translation: A Long Road...



IUCRC Program

Portfolio: Universities

75

Active Centers

225

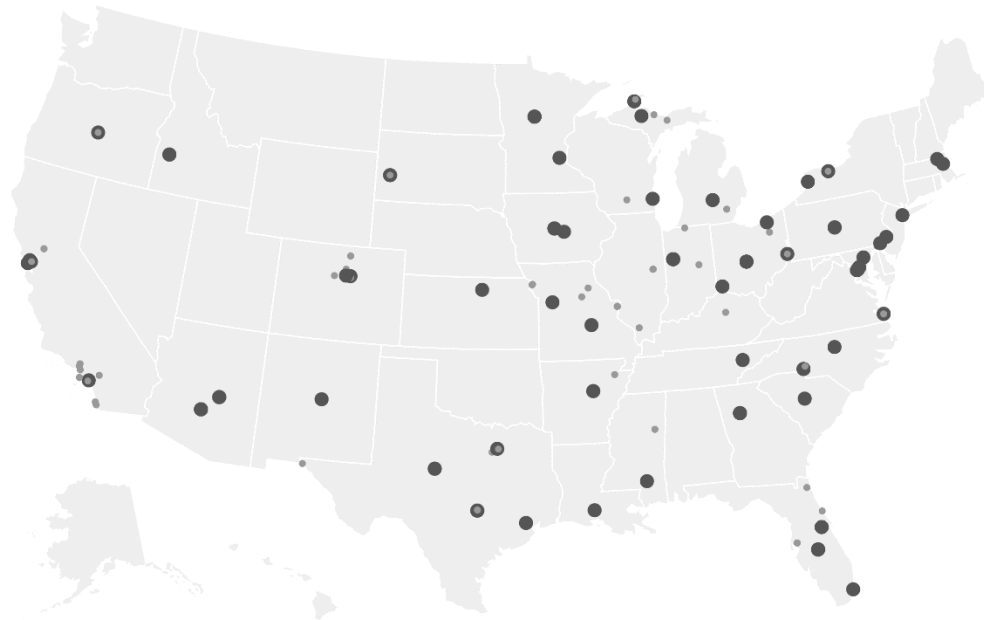
Research sites

7

International sites

876

Unique members



1:42

\$1 in member contributions leverage \$42 additional dollars in value

1,586

Center trained students hired by members (2006 – 2015)

*Data from 2015



IUCRC Program

NSF Innovation Role

NSF IUCRC Environment

- NSF Proposal Merit Review and Center Oversight
- NSF Award Seed Funding Support
- Industry | University Center Franchise
(Operational Framework & Cooperative Agreement)
- Institutional Knowledge (45 years at NSF)
- Long-term Industry | University Relationships
- NSF Award Supplemental Funding



IUCRC Center

Focus

An **IUCRC** is a **partnership** enabling **sustained research cooperation** among industry, universities, and government.

Centers bring together:

(1) IUCRC Industry Members

consisting of companies, state/federal/local government, and non-profits,

(2) IUCRC Academic Institutions (Sites)

consisting of faculty and students from different academic institutions

IUCRC Center

Focus

An IUCRC focuses on cutting-edge **pre-competitive fundamental research** in science, engineering, technology area(s) of interest to industry that can drive innovation and the U.S. economy.

Members guide the direction of Center research through active involvement and mentoring.



IUCRC Center Organization

Use-inspired, pre-competitive research portfolio that is cooperatively defined and funded on the basis of shared value

Industry Advisory Board (IAB)



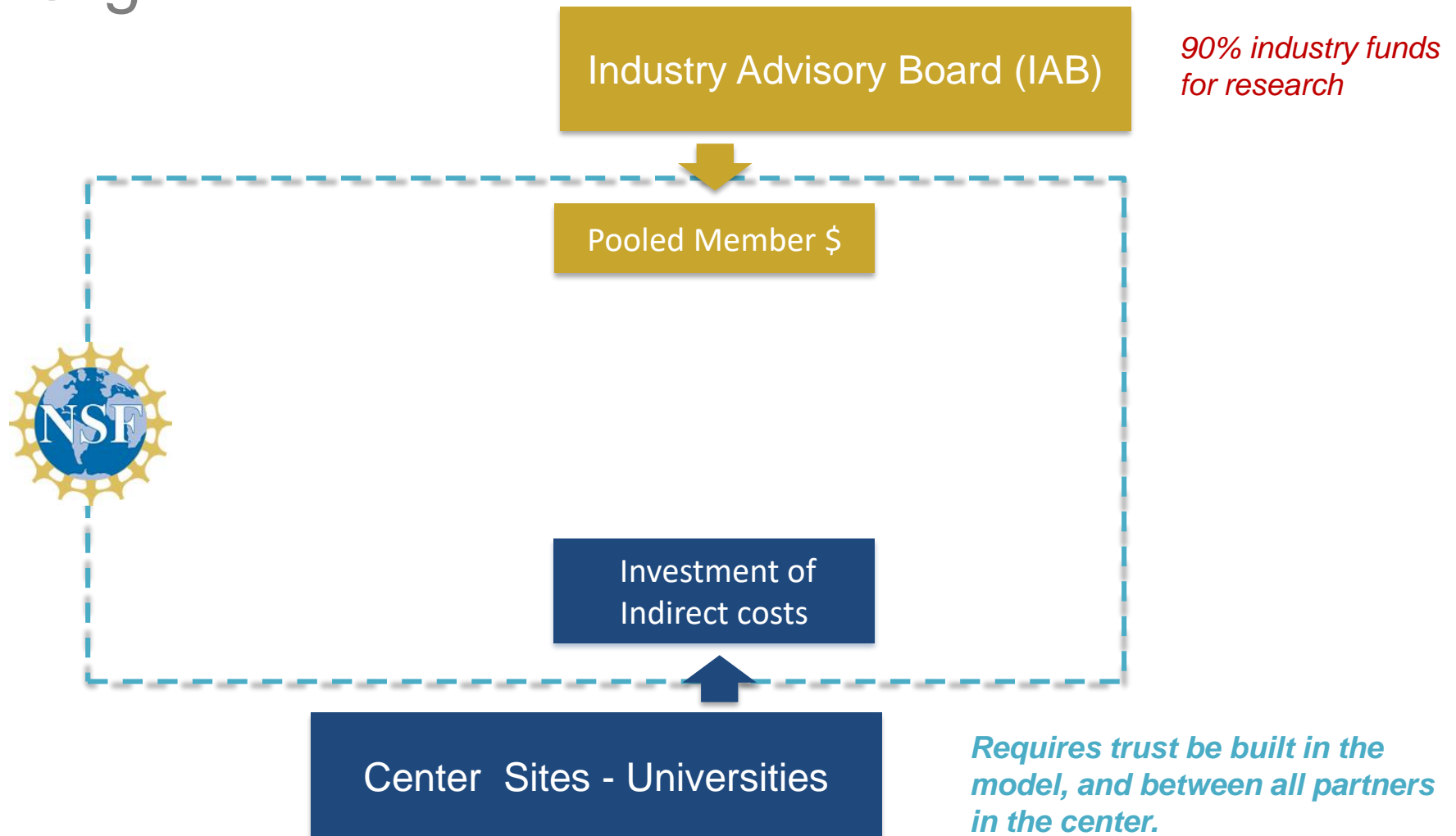
Center Sites - Universities

Requires trust be built in the model, and between all partners in the center.



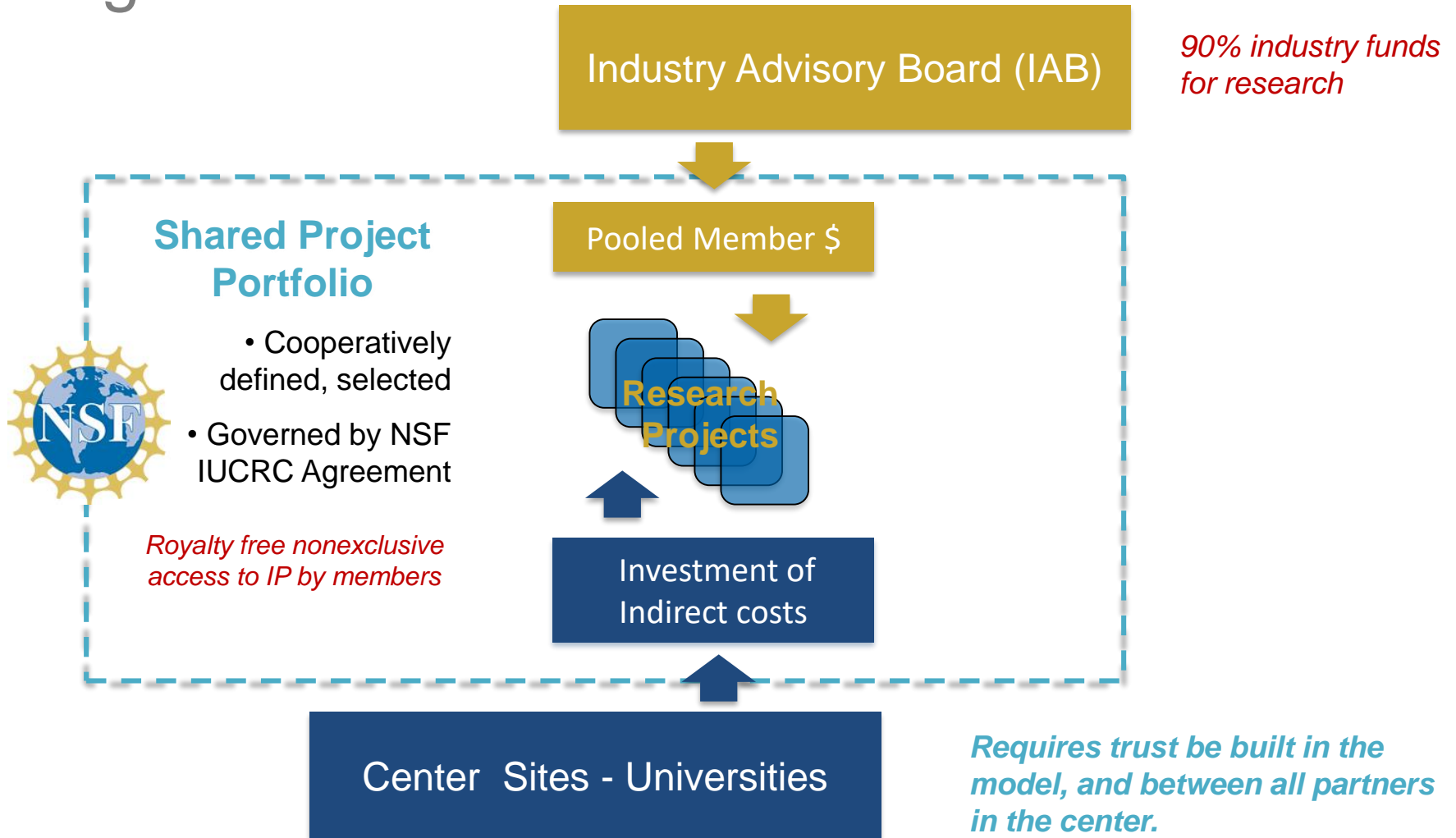
IUCRC Center Organization

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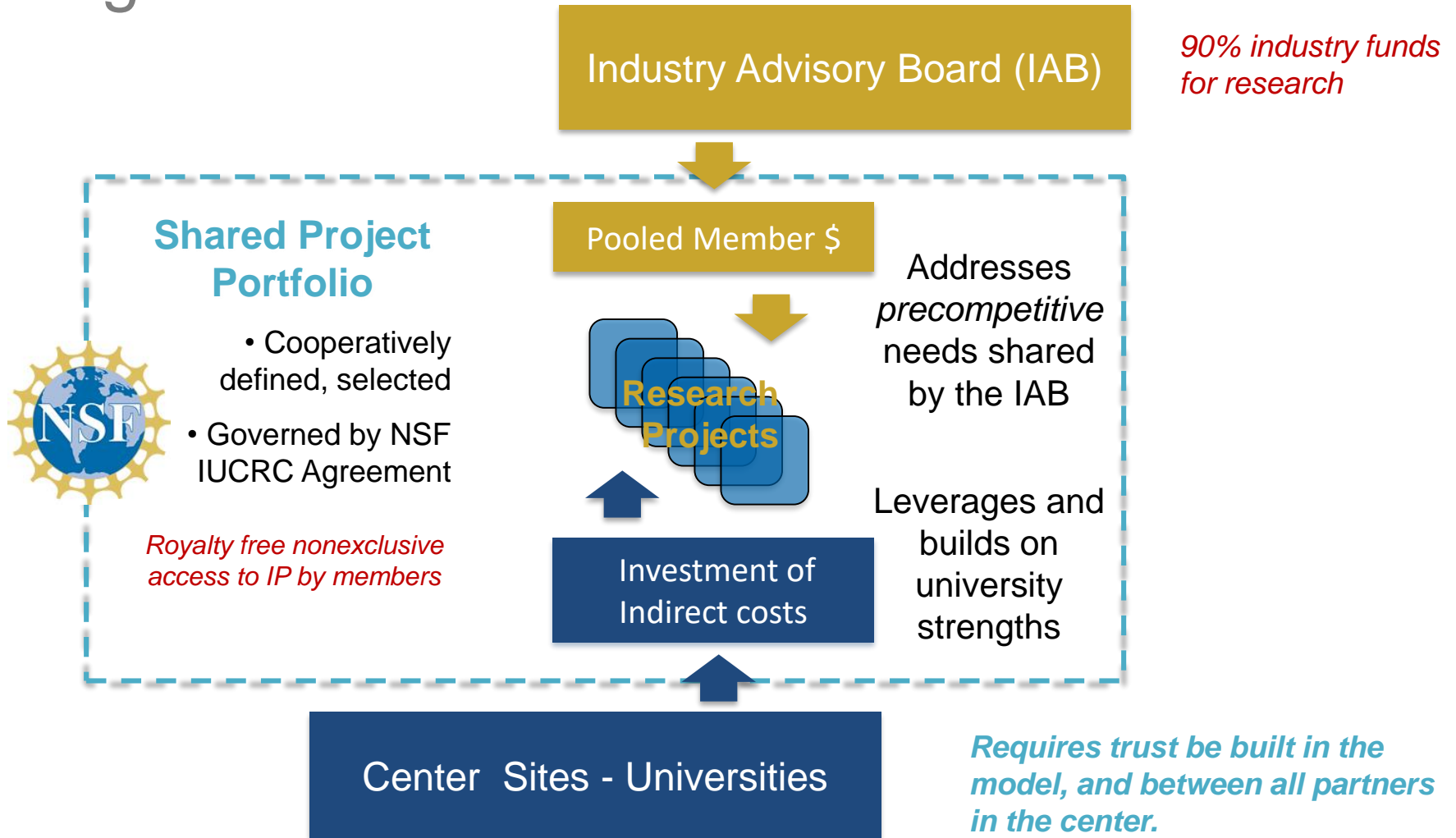
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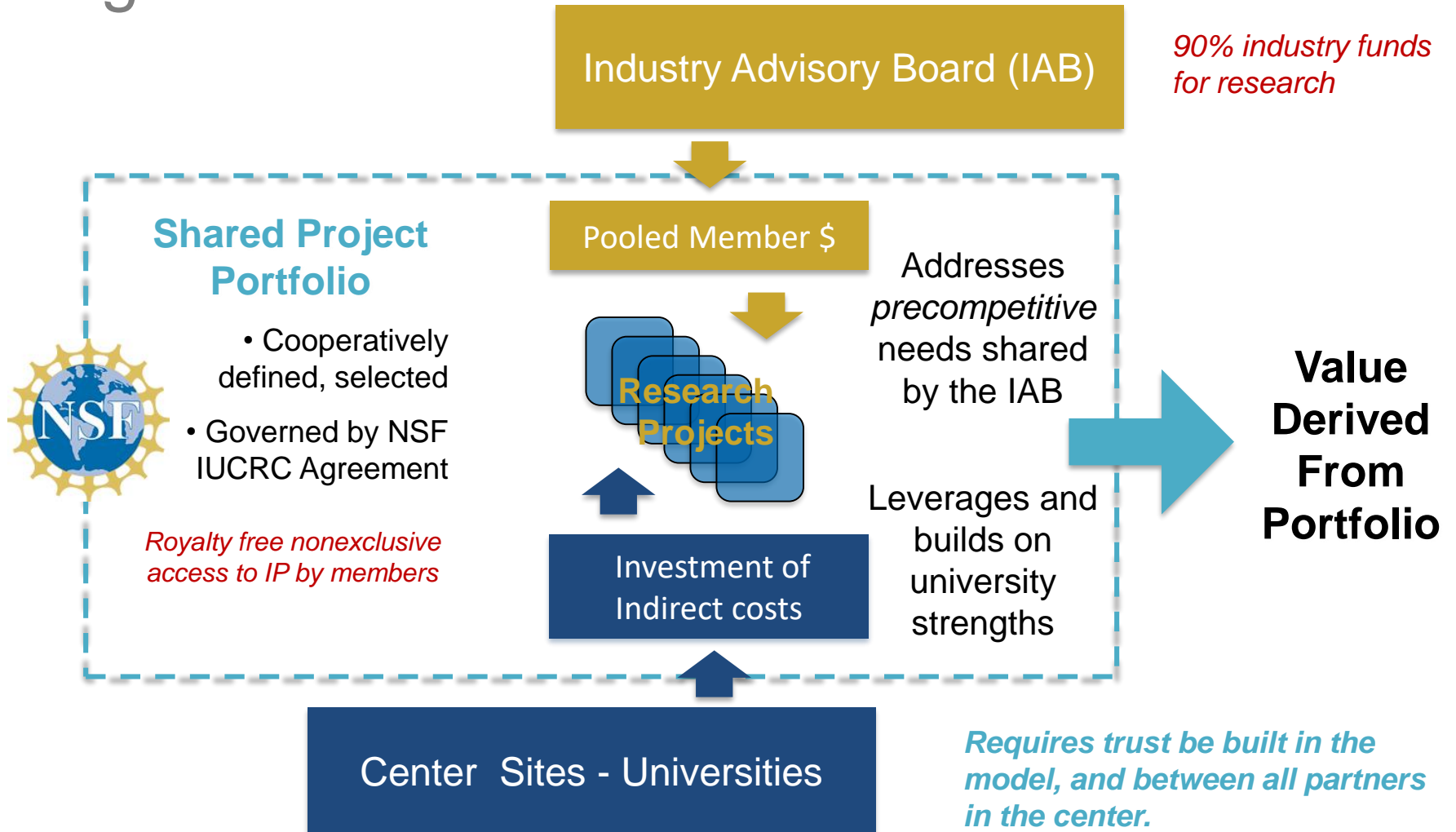
IUCRC Center Organization

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IUCRC Center Organization

Use-inspired, pre-competitive research portfolio that is cooperatively defined and funded on the basis of shared value



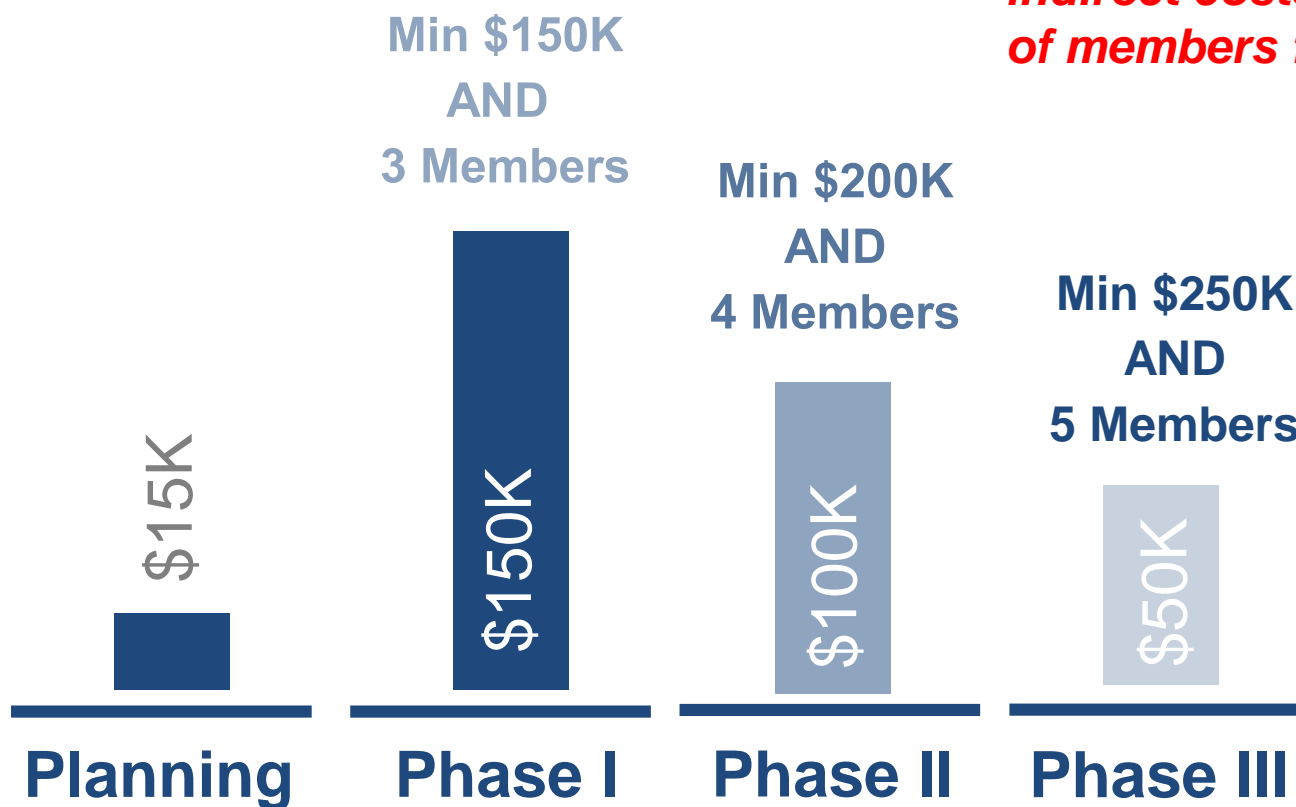
IUCRC Center

Organization | Multiple Sites

NSF Base Funding seeds the launch and operation of your Center

*indirect costs @ 10%
of members fee*

Base Funding



IUCRC Center

Organization

IUCRC Membership Agreement

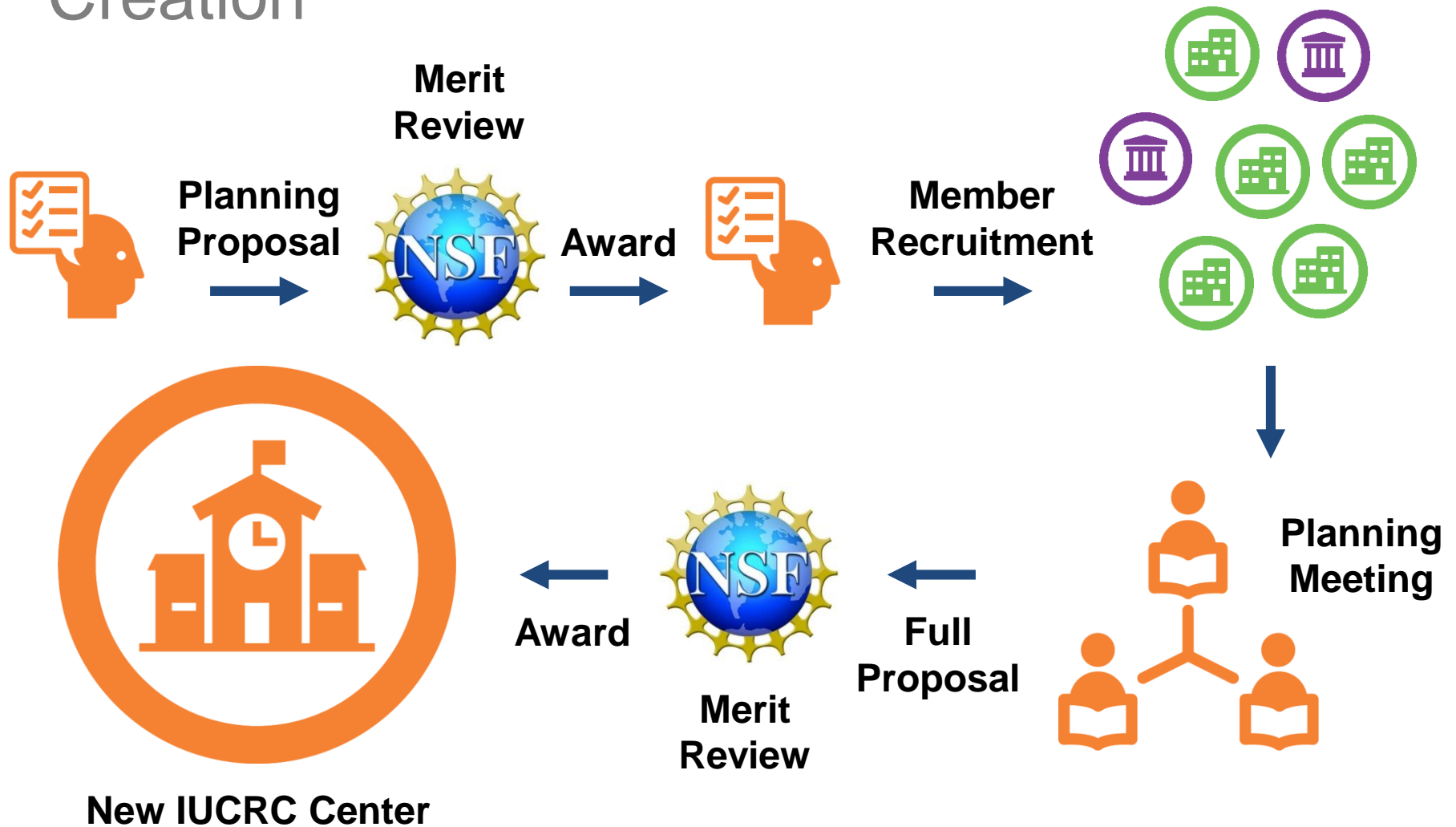
- **Parties to Agreement: Universities, IAB Members, and the IUCRC.**
- **Industrial Advisory Board:** one rep from each company per membership.
- **Annual Membership Fee Structure**
- Patent rights held by university with royalty free, non-exclusive rights to Center members.
- Compliance with chapter 18 of title 35 of the US Code (Bayh-Dole Act)
- Companies wishing to exercise rights to a royalty-free license pay for patent application.
- If only one company seeks license it may obtain an exclusive fee-bearing license.
- Publication delay policy.

All Members sign the agreement upon Center Award
ONE center, and ONE membership agreement form



IUCRC Center

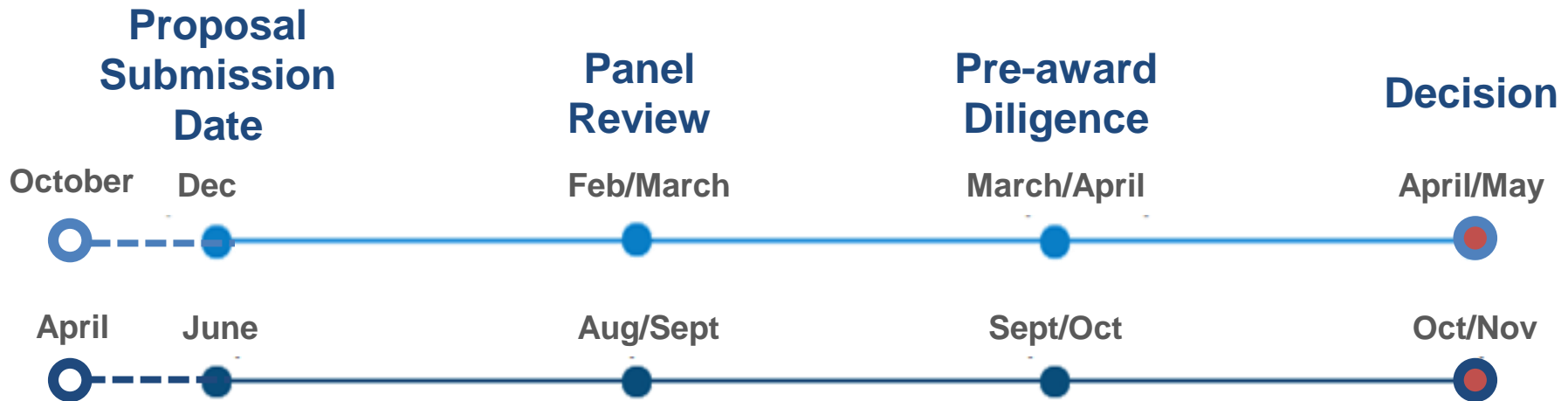
Creation



IUCRC Center

Creation

NSF Proposal Timeline for IUCRC (Planning and Phase I,II, and III)



Pre-proposal
Submission
Date

Applicants receive **prompt** detailed feedback. Reviewer and panel comments to NSF are shared with applicants verbatim

IUCRC Center

Value

Shared Value

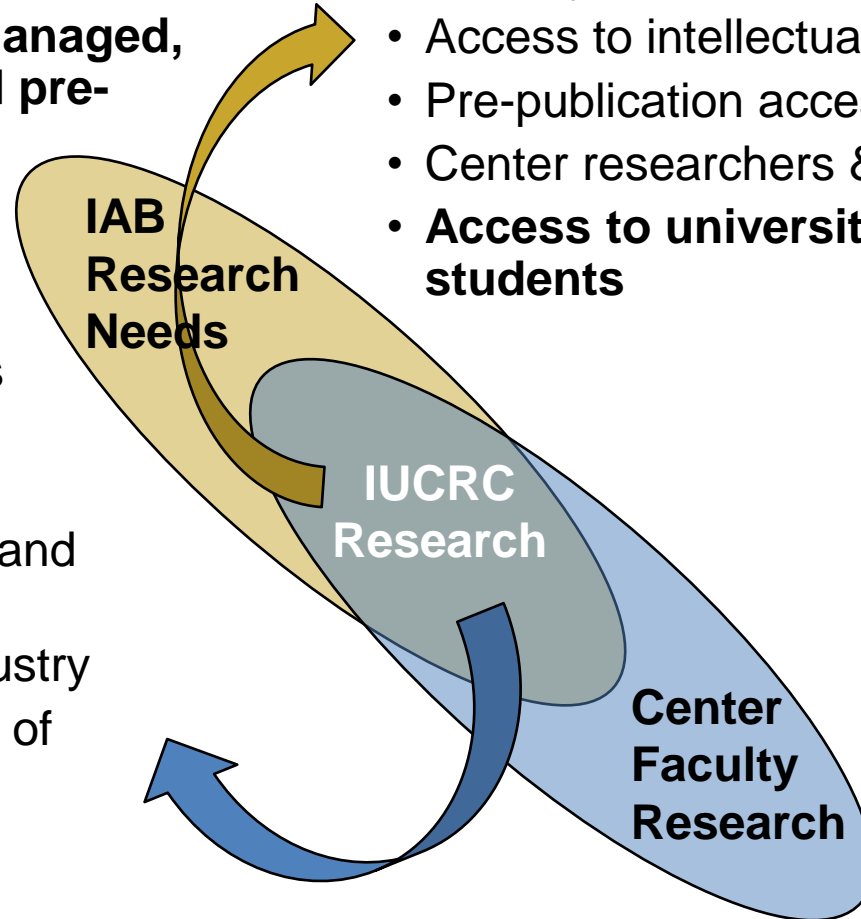
- **Cooperatively defined and managed, portfolio of industry-directed pre-competitive research.**
- Research outcomes

University Value

- Understanding industry needs
- New research and education program dimensions
- Student training, recruitment, and placement
- Trusted relationships with industry
- Ready partners for translation of discoveries
- Means to achieve institutional mission.

Industry Value

- Cutting edge research projects
- **Investment leveraging**
- Sector networking, learning from industry peers and customers
- Access to intellectual property
- Pre-publication access to research
- Center researchers & facilities
- **Access to university faculty and students**



IUCRC Center

Value

Additional NSF Support

(www.nsf.gov/eng/iip/iucrc/funding.jsp)



Explore NSF's awards

<http://www.nsf.gov/awardsearch/>



Thank you!

To learn more about IUCRCs

<http://www.iucrc.org/>

Questions?!

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Thank you for participating

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