

CORPS
NSF Innovation Corps

NSF Innovation Corps (I-Corps)

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United States National Science Foundation

October 3, 2012

1:00PM– 2:00PM

Presentation Goals & Definition of Success

Goals

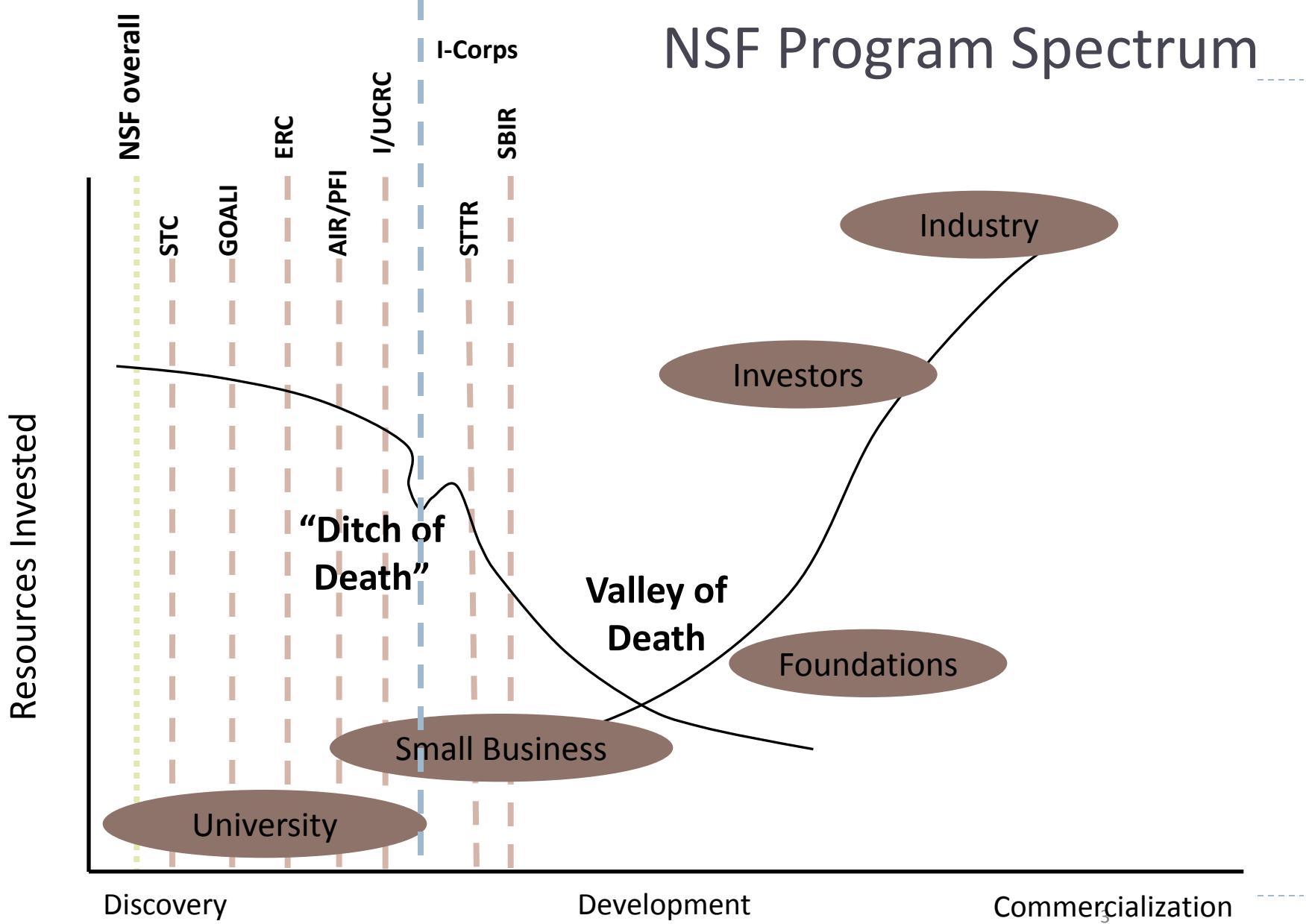
- ▶ The purpose of this session is to share information on the NSF Innovation Corps (NSF I-Corps) Program (status, inner workings/operation, principles, thoughts and recent associated developments) with interested parties for the purpose of encouraging dialogue and participation.

Definition of Success

- ▶ Participants leave the meeting with a deeper understanding of NSF I-Corps, and understanding of the principles of the program



NSF Program Spectrum



I-Corps Proposal Process

Previously Funded NSF Work
Identified & Team Formed

One Page Executive Summary
Developed

I-Corps Candidate Team Contacts NSF
Potential Advocates

I-Corps Topic Specific Program Officers

Steve Ellis – BIO
Anita La Salle – CISE
Don Millard – EHR
Babu DasGupta – ENG
Raffaella Montelli – GEO
Mary Galvin-Donoghue – MPS
Irene Qualters – OCI
Quinetta Roberson – SBE

I-Corps Management Team

Dedric Carter
Errol Arkilic
Babu DasGupta
Anita La Salle
Richard Voyles
Don Millard

I-Corps Candidate Team Conference
call with I-Corps Management Team

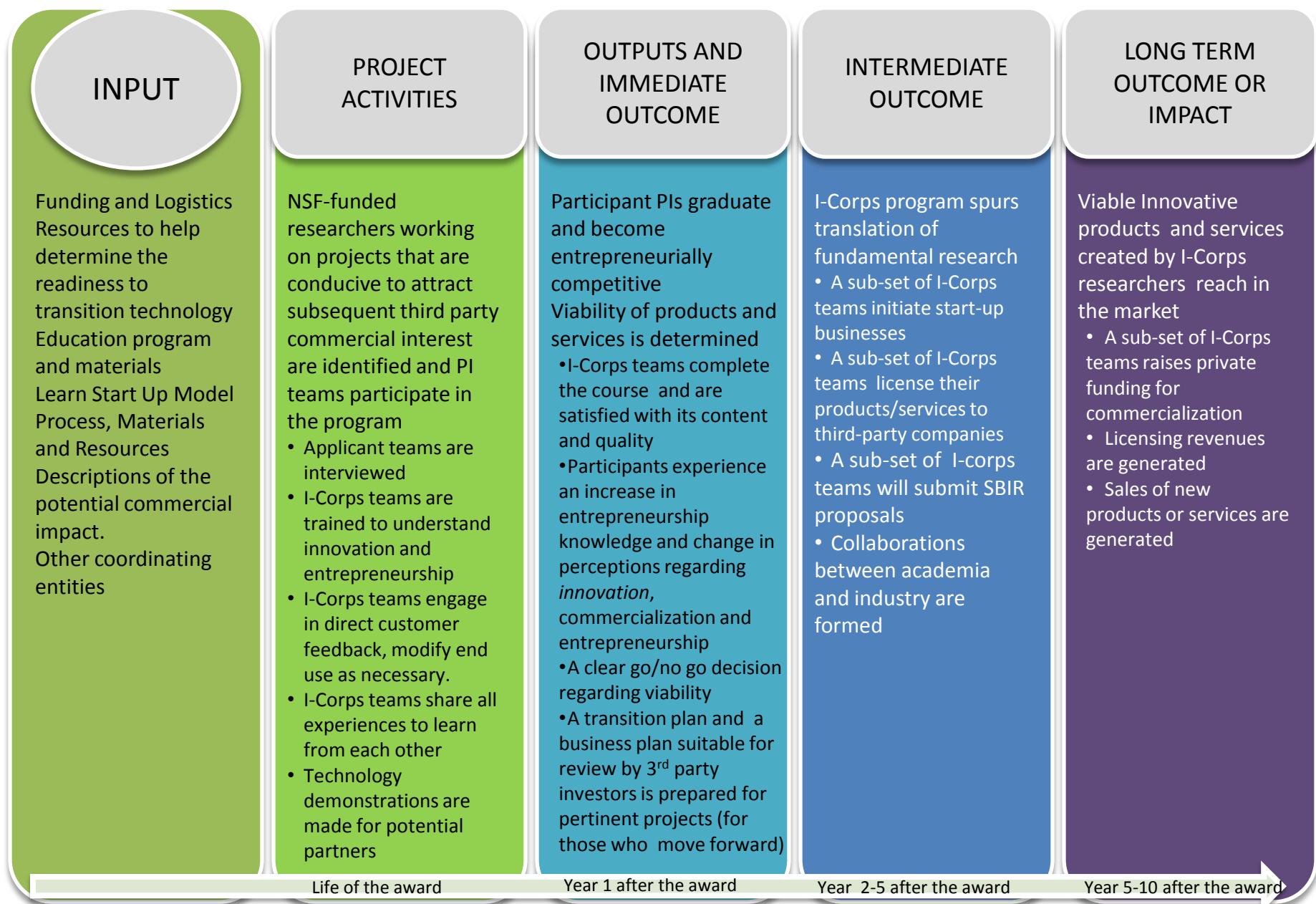
I-Corps Candidate Team Conference
Call with I-Corps Instructional Team



Anticipated Outcomes (Launch July 2011)

- ▶ 6-month Project Deliverables
 - ▶ Technology disposition: Go/No Go
 - ▶ Technology demonstration: To show partner
 - ▶ Commercialization Roadmap: Assuming Go
- ▶ Longer-term Program Outcomes
 - ▶ Functioning network of Mentors/Advisors
 - ▶ Scientist and Engineers trained as Entrepreneurs
 - ▶ Increased impact of NSF-funded basic research
- ▶ Shorter-term Program Outcomes
 - ▶ Material Transfer Agreements
 - ▶ License Agreements
 - ▶ Number of projects seeking (receiving) additional funding sources

DRAFT: I-CORPS LONG-TERM LOGIC MODEL: DRAFT



Representative Grant Uses



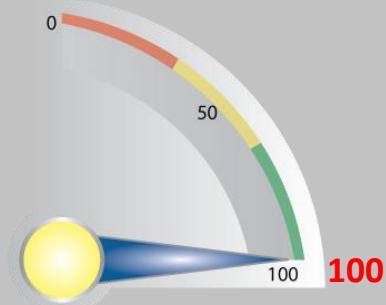
Efforts may include, for example:

- Prototype Development
- Travel (e.g. course, prospective customer)
- Equipment purchase
- Expenses discussed in proposal budget

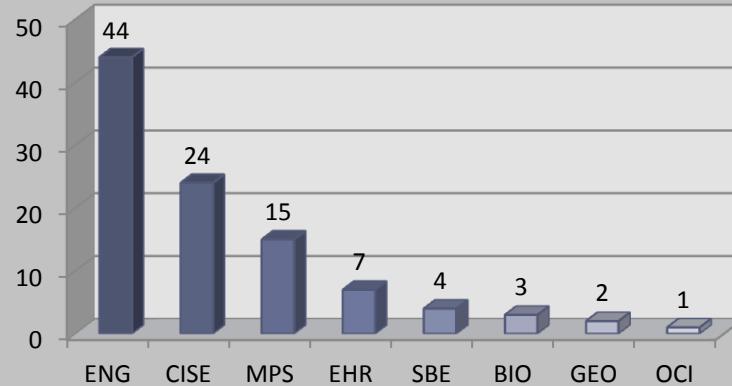
Strongly Discouraged:

- Mentor Compensation
- Legal Fees

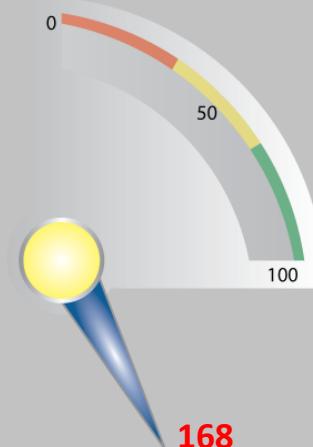
Awards



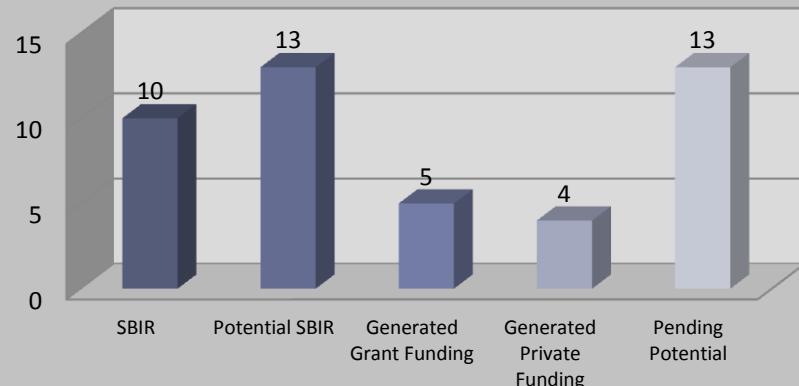
Directories Represented



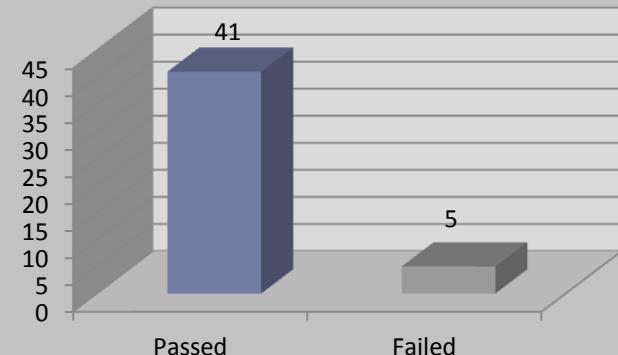
Mentors



Additional Funding Proposals

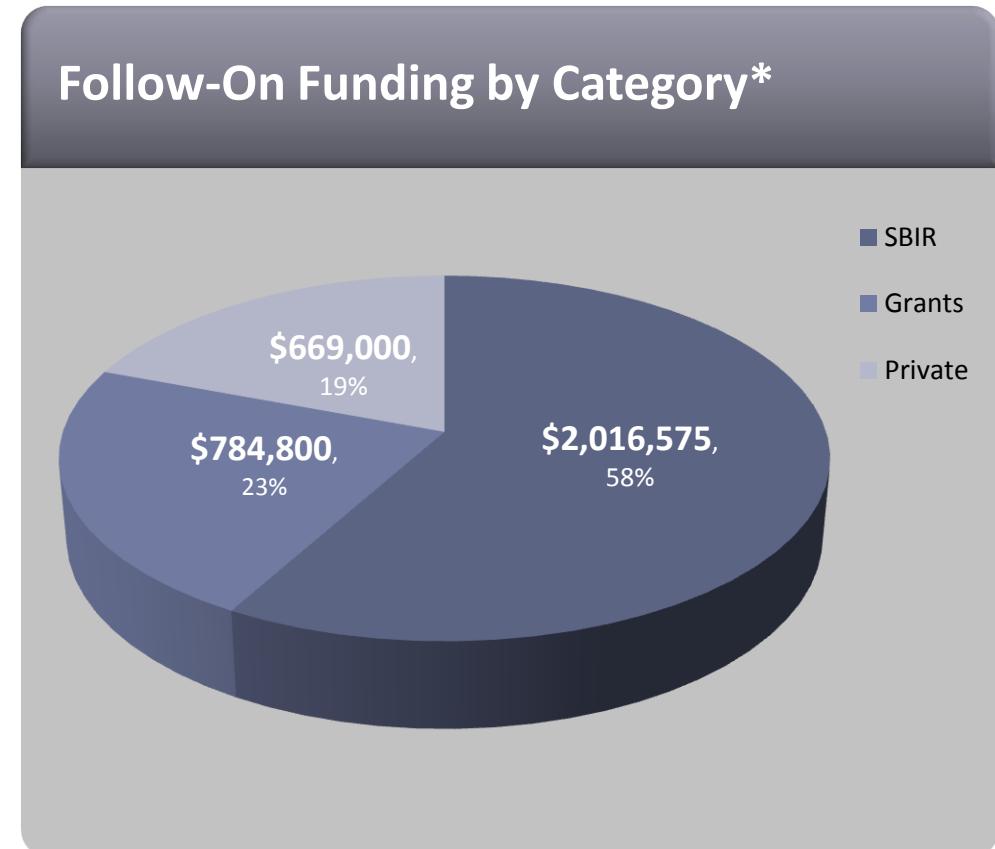


Successfully Completed Curriculum



I-Corps by the Numbers (Cohorts 1 and 2)

- ▶ Total Follow-On Funding:
\$3,470,375
 - ▶ Average: \$93,794
 - ▶ Median: \$50,000
 - ▶ Standard Deviation: \$101,943
 - ▶ Range: \$0- \$420,000



* based on 33 phone interviews with PIs and SBIR award data.

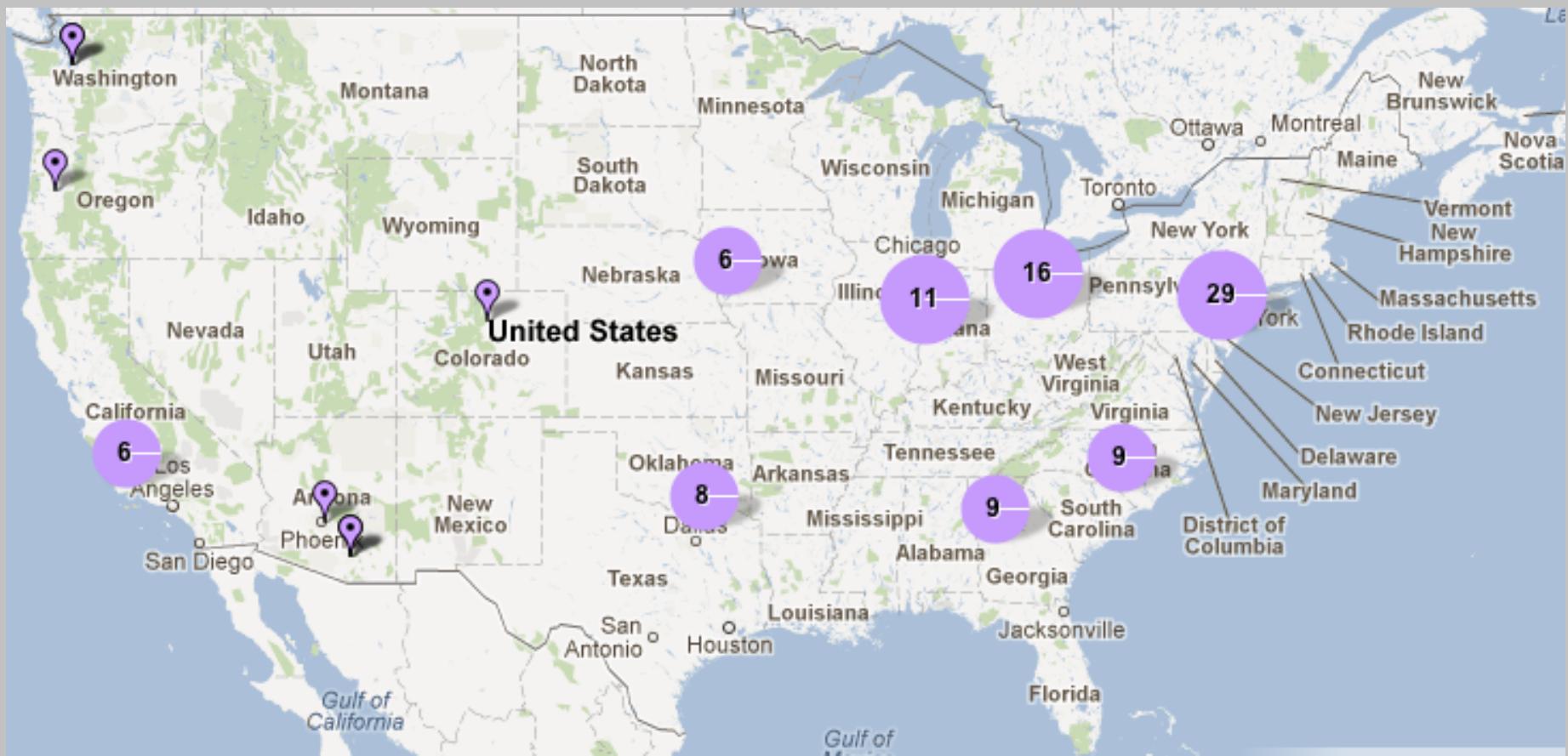


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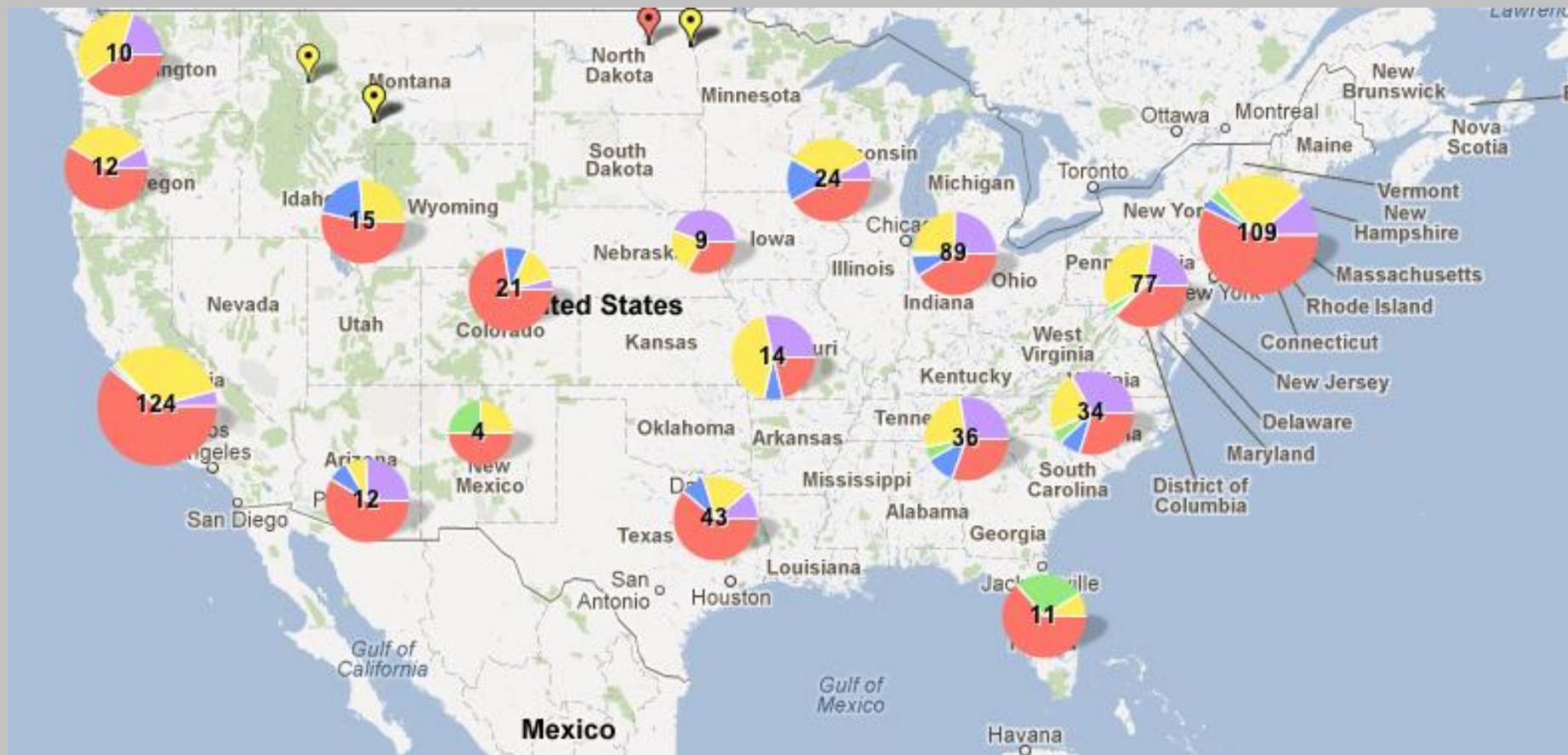
I-Corps Awards as of May 2012 Showing Cohorts 1 & 2



I-Corps Awards as of July 16, 2012 Showing Cohorts 1-4



Active SBIR/STTR and I-Corps Awards as of July 16, 2012 Showing Cohorts 1-4



Program

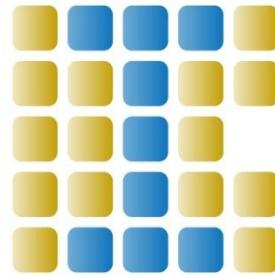
SBIR Phase II

STTR Phase I

STTR Phase I

SBIR Phase I

 I-Corps min



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I-Corps Nodes

How can we expand upon what we've learned?

I-Corps Node Contributions

Level 1 – Regional Training

- Deliver a training program based on the hypothesis/ validation "Customer Development" curriculum – at least once a year, across disciplines
- Build teams of students, faculty, researchers and other local/regional stakeholders
- Deliver the curriculum to NSF's I-Corps teams (up to two times per year)
- Compile assessment and evaluation data to be openly shared among other I-Corps Nodes
- Engage members from the local investment community to serve as volunteers for the training

Level 2 – Develop Tools and Resources

- Develop near-term tools and resources *(to impact and expand the benefits of the entire I-Corps program - within a 2-3 year timeframe)*
- Identify models of effective innovation content, curricula, and teaching practices for broad dissemination and implementation
- Utilize a logic model to measure and analyze any commensurate changes/ success/achievements
- Further build entrepreneurial capacity in the node environments

Level 3 – Blue Sky Research

- Identify and pursue longer-term R&D projects
- Leverage and analyze data from Level 1 and Level 2 contributions
- Research how institutions can improve support for innovation ecosystems
- Examine and track the I-Corps teams' outcomes
- Develop methods for scaling effective practices and models
- Explore how the network can enable new collaborations to support commercialization - *independent of geographic location*



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Node Considerations

- **Nodes will have autonomy** in their operation, management, and oversight
- **Each institution must commit** to providing the necessary infrastructure (*at an upper level of administration*)
- **Nodes must embrace a culture of open access** to data, educators, researchers and mechanisms for encouraging non-traditional participants from diverse disciplines
- **Nodes will need to form partnerships** among regional institutions



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I-Corps Evolving Model

I-Corps Teams

Status:

- Started July 2011

Scope:

- Funds NSF PIs and **their teams to transition research outcomes into the marketplace**
 - Teams of 3 are immersed in entrepreneurial training
 - 99 Awards in FY12
 - 200 awards planned for FY13
- Awards
 - \$50K for 6 months

I-Corps Sites

Status:

Scope:

- **Sites at academic institutions (having already existing innovation or entrepreneurial units) to: nurture and support multiple, local teams to transition ideas, devices, processes or other intellectual activities into the marketplace**

I-Corps Nodes

Status:

- Publication on July 18th

Scope:

- **Regional Nodes:** (*expect to award 2-3 additional in FY13*)
 1. Provide **regional training**
 2. Develop near-term **tools and resources**
 3. Identify/pursue longer-term **research and development** projects
- Awards (up to 3 years):
 - Single-institution: \$350,000 per year
 - Two-institution team: \$750,000 per year
 - Three-institution Team: \$1.25 million per year

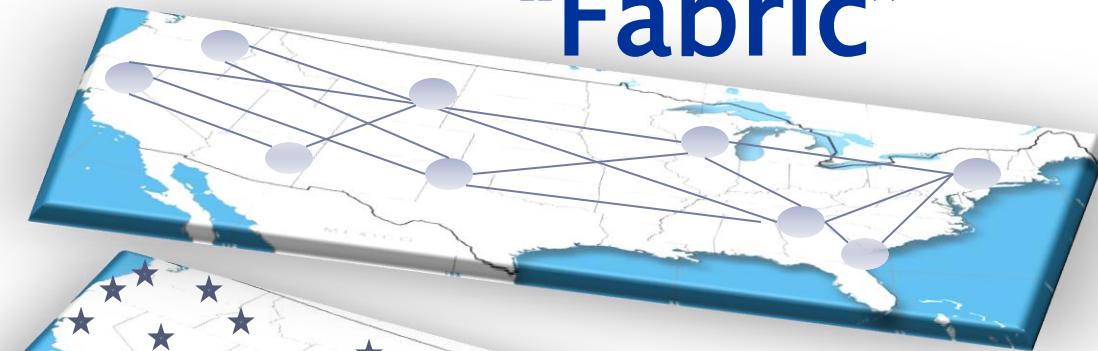


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The Nation's I-Corps "Fabric"

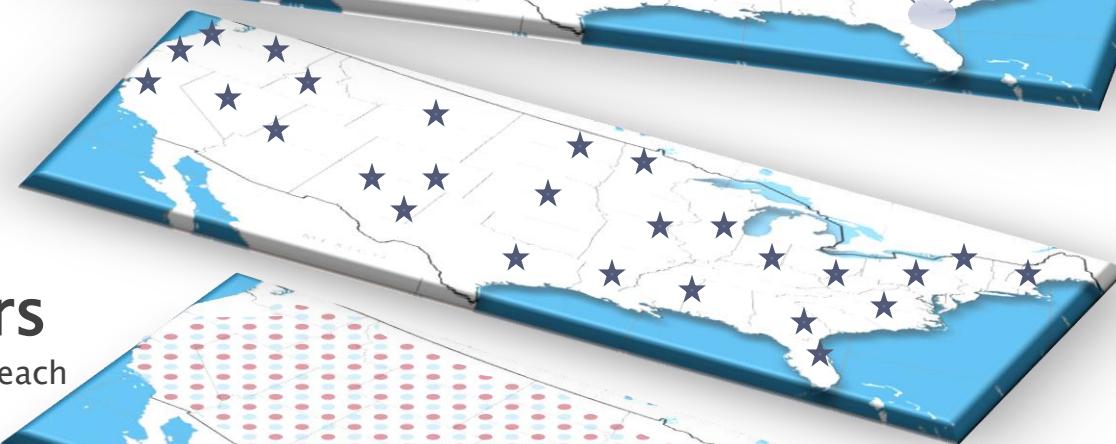
I-Corps Nodes

Anticipated up to 10-15
Regional Nodes



I-Corps Sites

Up to 30 new Sites each
year



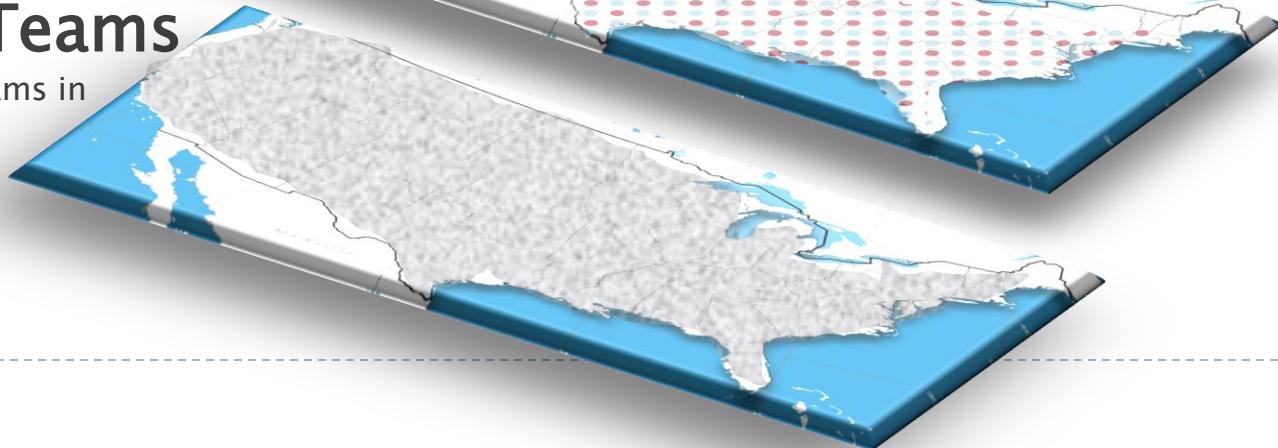
I-Corps Mentors

Over a hundred new mentors each
year



I-Corps Teams

Over 180 new teams in
FY'13



I-Corps Regional Nodes

Total of 10-15 Regional Nodes

Solicitation 12-586

Deadline Date: October 19, 2012

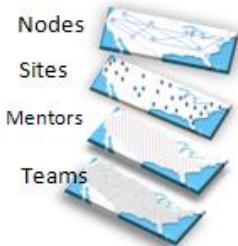
NSF will build a network of regional nodes that will work cooperatively to establish, utilize and sustain a national innovation ecosystem that further enhances the development of technologies, products and processes that benefit society.

Level 1 Contribution - I-Corps Regional Training

Level 2 Contribution - I-Corps Node Regional Infrastructure

Level 3 Contribution - I-Corps Node Blue Sky Research

- Coordinate innovation research, education, outreach and commercial development programs across the network;
- Ensure close linkage and cooperation among the nodes such that they operate as a cohesive national network;
- Support projects across the network - through development and utilization of compatible internet-based networking/collaboration tools;
- Disseminate shared knowledge to research and development communities;
- Promote of diversity among students, faculty, staff, management, and outreach activities;
- Measure and assess node/network performance and impact;
- Plan to accommodate emerging areas and future growth of external/internal node participants, including adding new participants to, or dropping existing participants from, the network; and
- Foster additional support from non-NSF sources, including other Federal agencies, State governments, and the private sector.



I-Corps Sites

30 new Sites each year

Solicitation **12-604**

Deadline Date: **January 7, 2013**

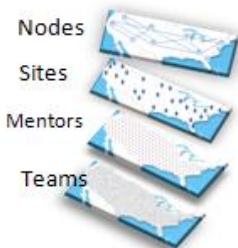
Deadline Date: **July 1, 2013**

First Monday in July, Annually Thereafter

Sites are funded at academic institutions, having already existing innovation or entrepreneurial units, to enable them to:

- Nurture and invest in students and/or faculty who are engaged in projects having the potential to be transitioned into the marketplace. I-Corps Sites will provide infrastructure, advice, resources, networking opportunities, training and modest funding to enable groups to transition their work into the marketplace or into becoming I-Corps Team applicants.
- Develop formal, active, local innovation ecosystems that contribute to a larger, national network of mentors, researchers, entrepreneurs and investors.

The purpose of an I-Corps Site is to nurture and support multiple, local teams to transition their ideas, devices, processes or other intellectual activities into the marketplace.



I-Corps Teams

250 new teams in FY'13

Solicitation 12-602

Deadline Dates

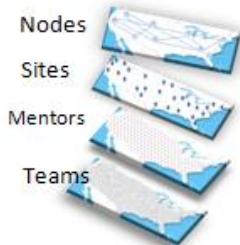
October 1 - December 15/ January 1 - March 15/ April 1 - June 15/ July 1 - September 15

The NSF I-Corps Teams purpose is to identify NSF-funded researchers who will receive additional support - in the form of mentoring and funding - to accelerate innovation that can attract subsequent third-party funding.

The purpose of the NSF I-Corps Teams grant is to give the project team access to resources to help determine the readiness to transition technology developed by previously-funded or currently-funded NSF projects.

The outcomes of I-Corps Teams projects will be threefold:

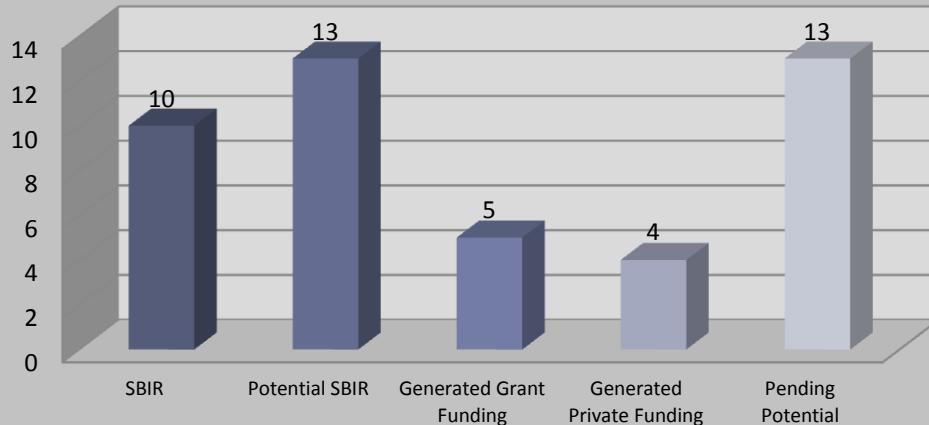
- 1)a clear go or no go decision regarding viability of products and services,
- 2)should the decision be to move the effort forward, a transition plan for those projects to move forward, and
- 3)a technology demonstration for potential partners.



A webinar is held on the first Tuesday of every month to answer questions about this program.

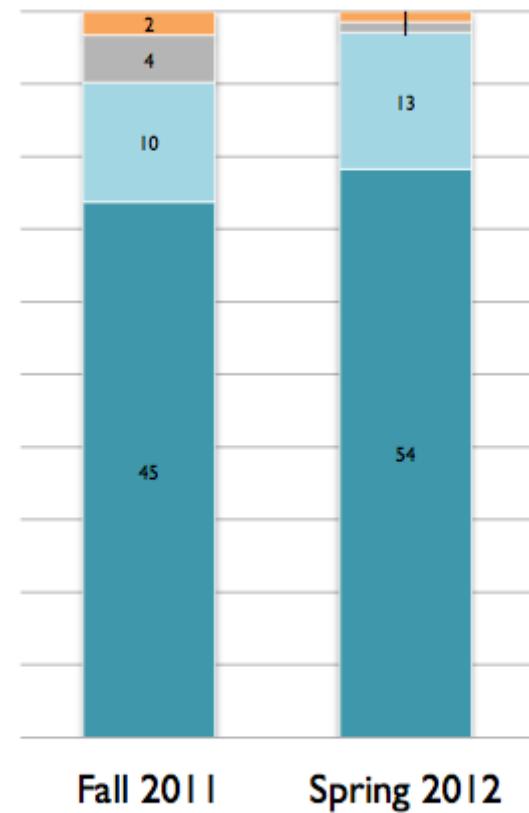
Leveraging the I-Corps Network

Additional Funding Proposals



What pathways should be available for the I-Corps alumni ?

I will use the information and ideas from the I-Corps course in my career

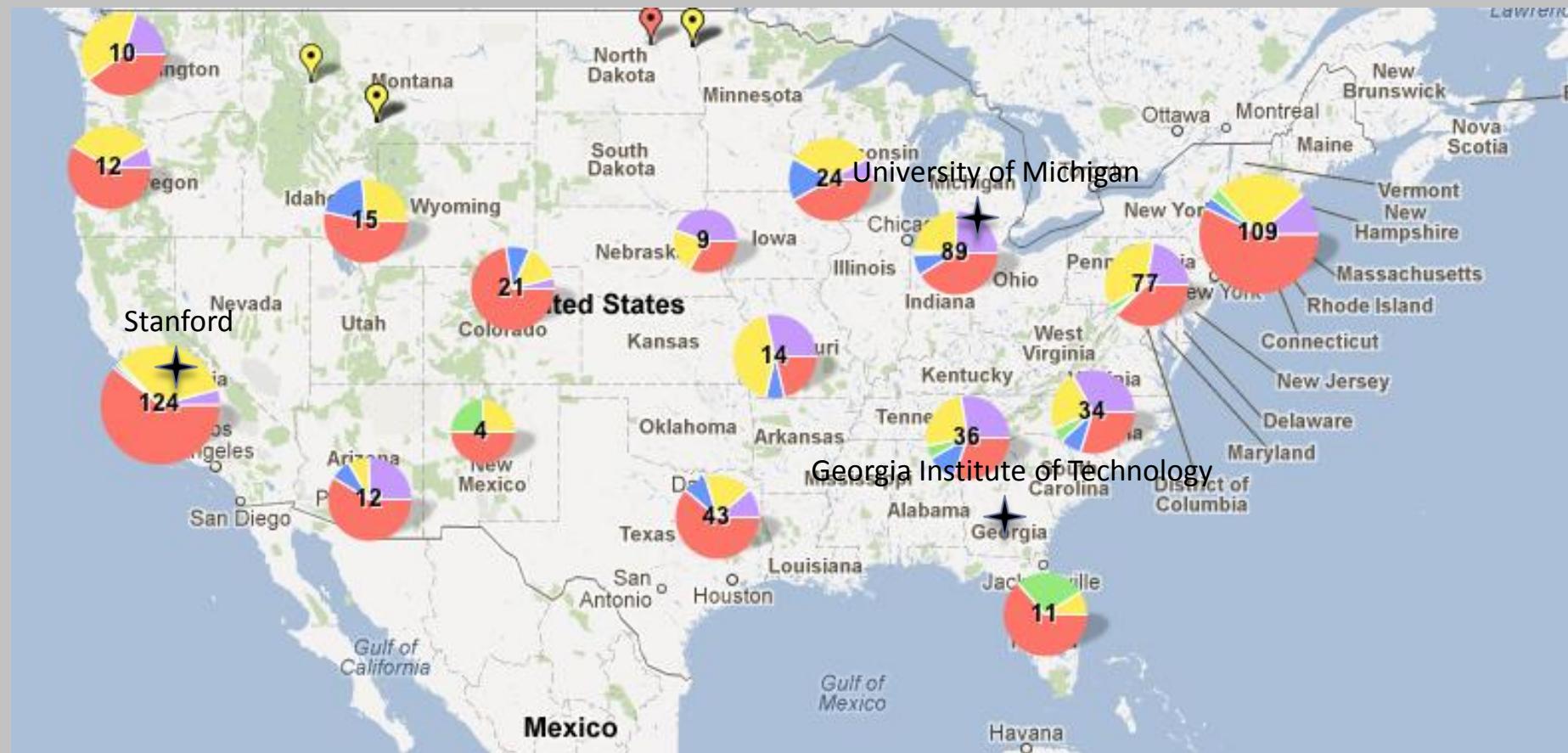


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■ Totally agree ■ Agree ■ Unsure ■ Disagree ■ Totally disagree

* Data on I-Corps course in career from NCIIA

Leveraging the I-Corps Network: Optimal Network Nodes



Program

SBIR Phase II

STTR Phase I

STTR Phase I

SBIR Phase I

I-Corps min

I-Corps Planned Milestones Moving Forward

- September: Convene Interested Agencies in I-Corps
- October: Cohort 5 at Georgia Tech, Cohort 6 at U. Michigan
- October: Receive Proposals for Node Solicitation
- November/December: Make Node(s) selection for Jan. Train-the-Trainers
- January : Cohort 7 and Train-the-Trainer for new nodes in 2013
- January: Receive Proposals for Site Solicitation
- April: Launch two additional I-Corps Nodes



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NSF Innovation Corps (I-Corps)

Accelerating innovation from the laboratory to the market



http://www.nsf.gov/news/special_reports/i-corps/



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