



NCIIA Resources

Phil Weilerstein, President/CEO

Liz Nilsen, Senior Program Officer, Epicenter



Mission: Cultivate, Innovate, and Transform

NCIIA supports technology innovation and entrepreneurship to create experiential learning opportunities and successful, socially beneficial innovations and businesses.

NCIIA Program Funders

the **Lemelson** foundation
improving lives through invention



BILL & MELINDA
GATES foundation

Grand Challenges
EXPLORATIONS



Who We Are

NCIIA supports emerging science and technology innovators to move their ideas from discovery to scalable and sustainable approaches to achieving impact.

– Funding

- Grants Program
- VentureWell/Investment
- Biomedical Competition

– Training

- Global Xcelerator Training Program
- I-Corps Program
- Pathways & Lean LaunchPad Educators Seminar

– Networking

- National Innovation Network
- OPEN, VentureWell/NCIIA Annual Conference

Our Program Portfolio

NCIIA is recognized as the field's leader in funding, training, coaching, and investment to bring innovations to market.

Programs Providing Funding	Programs Serving Networks
Grants Programs	Epicenter <ul style="list-style-type: none">▪ University Innovation Fellows▪ Pathways to Innovation Global Xcelerator Training Program
VentureWell/Investment	I-Corps Program
Biomedical Competitions	OPEN, NCIIA's Annual Conference
	Lean LaunchPad Educators Seminar

Our Core Work: Students

NCIIA focuses on cultivating and investing in the next generation of entrepreneurs.





NCIIA offers two competitions that recognize **innovative medical technologies** developed by student entrepreneurs

- **BMEidea:** for grad & undergrad student teams
Up to \$10,000 | April deadline
- **BMEStart:** for undergrad student teams only
Up to \$10,000 | May deadline

NCIIA E-Team Program

Our E-Team Program provides funding and training to help collegiate entrepreneurs move innovations out of the classroom and into the market

Upcoming submission deadline:

Oct. 3

2013-14 E-TEAM PROGRAM

accelerating technology invention & innovation for scalable impact



STAGE 1

\$5,000
funding

40 teams

Market analysis

Value proposition
development



STAGE 2

\$20,000
funding

20 teams

Business model
development

Coaching



STAGE 3

\$50,000
investment opportunity

2-3 teams

Investment
readiness

Peer-selected
capital

Market Discovery



Key objective: Discover the best market for an invention.

Key questions: Do customers want the value that the invention provides? Is the market opportunity of sufficient scale to merit the effort to bring the invention to customers?

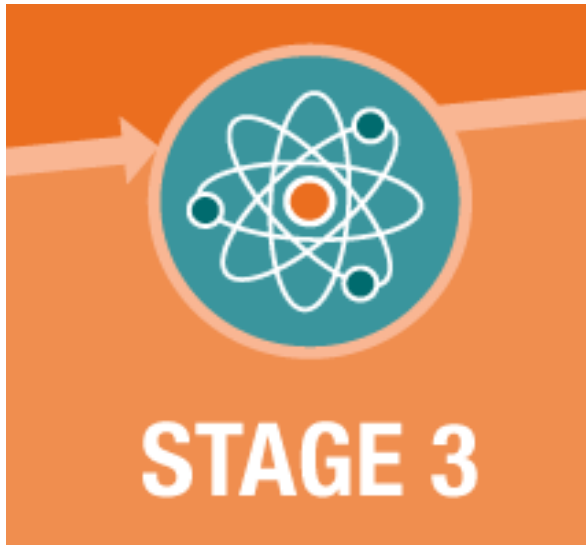
Business Model Development



Key objective: Develop a first business model hypothesis and through a customer discovery process, validate the business model.

Key question: Can a business model be developed that creates a viable entity that can profitably get the invention to market?

Investor Development



Key objective: Develop a case for investors to invest in the business (or grant fund the non-profit).

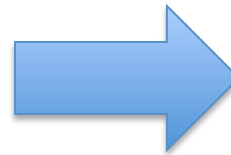
Key question: If a market of sufficient size and a business model have both been validated, what needs to be done to convince investors to invest in this team and this opportunity to “fuel” the commercialization process?

Learning/Educational Outcomes:

Student Knowledge, Motivation, and Action

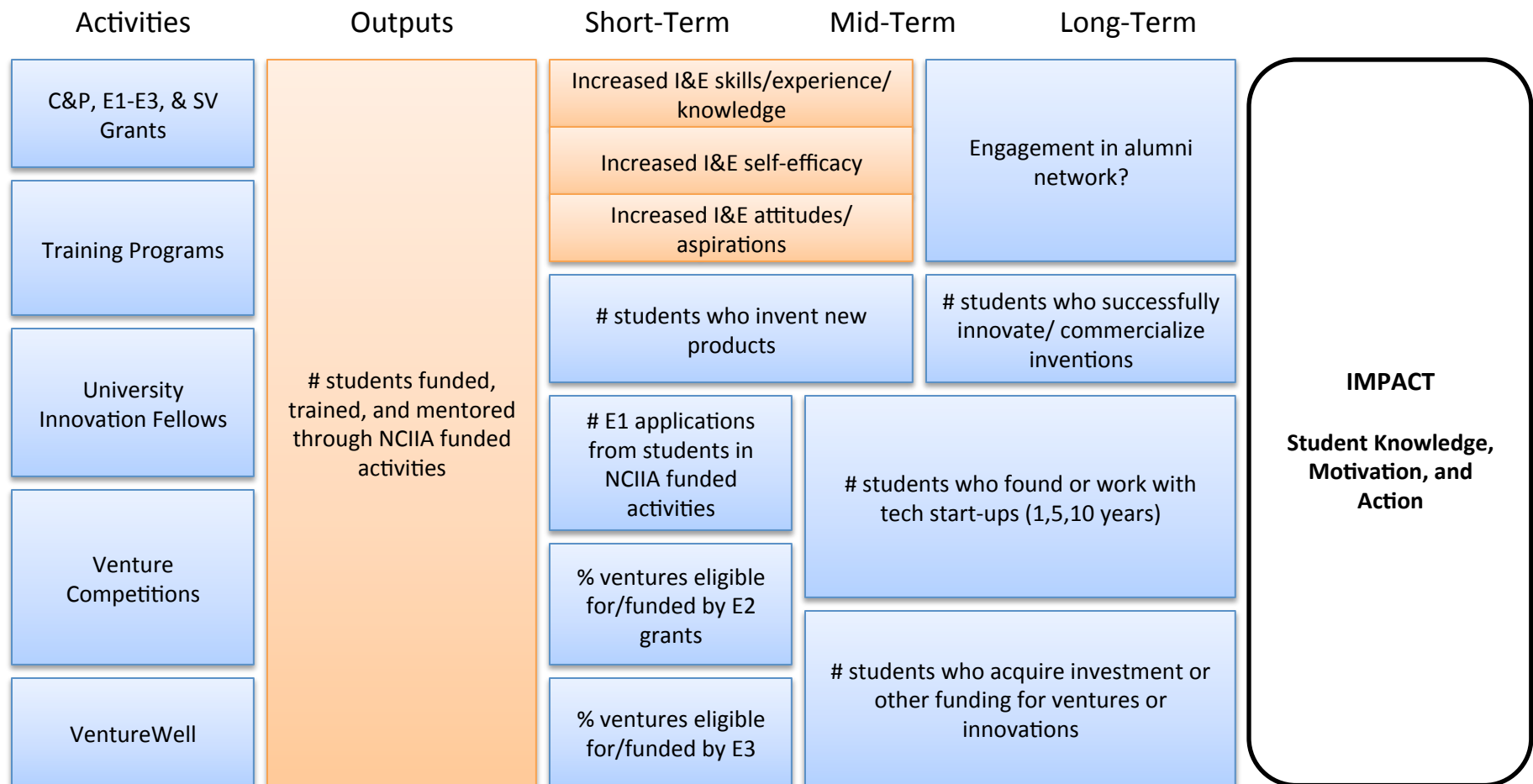
PROBLEM CONTEXT:

Lack of Support for Emerging Student Technology Innovations and Their Development as Ventures



PROPOSED SOLUTION:

Support the development of student ventures through funding, training, and mentoring that builds the capacity of the teams to succeed



Our Results

476 grants to E-Teams and faculty; 323 courses created

- 18,500+ students served while grants were active (avg. 85 per grant)
- 70% of courses and programs continue to serve students; of these 30% are institutionalized
- 265 E-Teams generated through C & P grants

71% of E-Teams had a successful exit or continued operation 5+ years; 180 companies that have leveraged ~\$350M of investment (25% success rate)

Technologies are in use throughout the world and being used by millions of people



Day One Response



Bullex



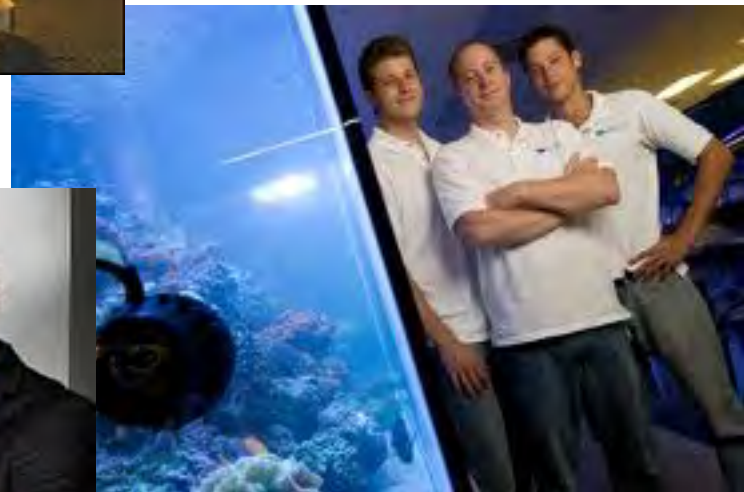
D-Rev



Sanergy



Intelliject



Ecotech Marine

Our Core Work: Faculty

NCIIA engages faculty in training, course development, and institutional change related to technology innovation.



NCIIA Course and Program grants

Course and Program grants strengthen existing or build new courses/programs in invention, innovation, and technology entrepreneurship.

- Up to \$50,000
- Upcoming submission deadline:
November 7, 2014

NCIIA Sustainable Vision grants

Sustainable Vision grants fund educational programs in which student teams create and commercialize technologies that benefit people living in poverty.

- Up to \$50,000
- Upcoming submission deadline **November 7, 2014**

Proposal Success

Technology Innovation

green materials, cleantech, medical devices, technologies for emerging markets, mobile & web-based technologies, etc.

Entrepreneurship

- **Out of the classroom/out of the lab*
- **Commercial potential*
- **Meaningful student involvement*

Social Impact

- **Solves real-world problem(s)*
- **Improves people's lives*
- **Positive environmental impact*

Strength of Team

- **The right team with the relevant expertise*
- **Demonstrated commitment & sustainability*

Our Core Work: Networks

NCIIA supports the establishment and growth of communities of practice in entrepreneurship and innovation.



Lean LaunchPad Educators Seminar

“One of the most comprehensive training programs I've ever attended.”

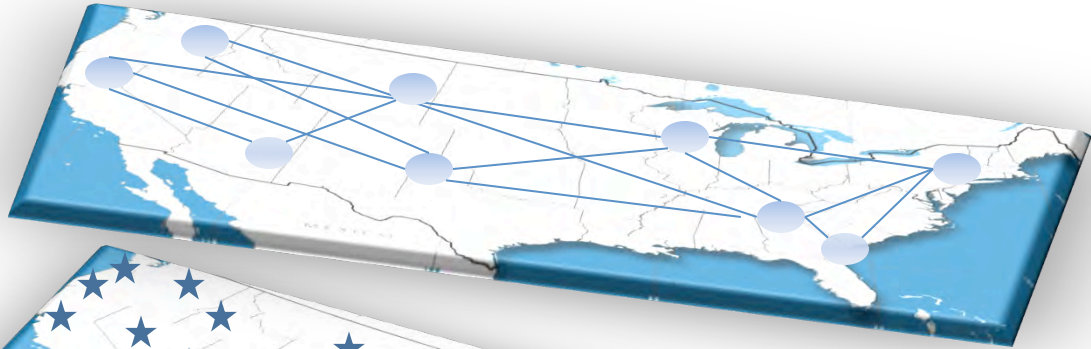
- **November 3-5, 2014**
Bay Area
- Learn to apply the LLP approach on your campus
- nciia.org/llp

We've learned a lot about entrepreneurship. Perhaps our curriculum should reflect what we've learned? - Steve Blank

I-Corps Program Activity

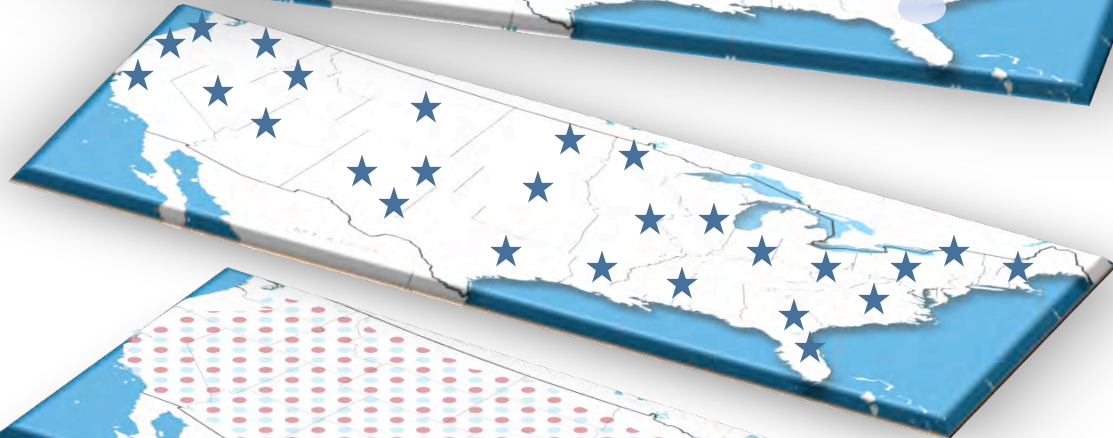
I-Corps Nodes

NCIIA Coordinates National Network of Nodes



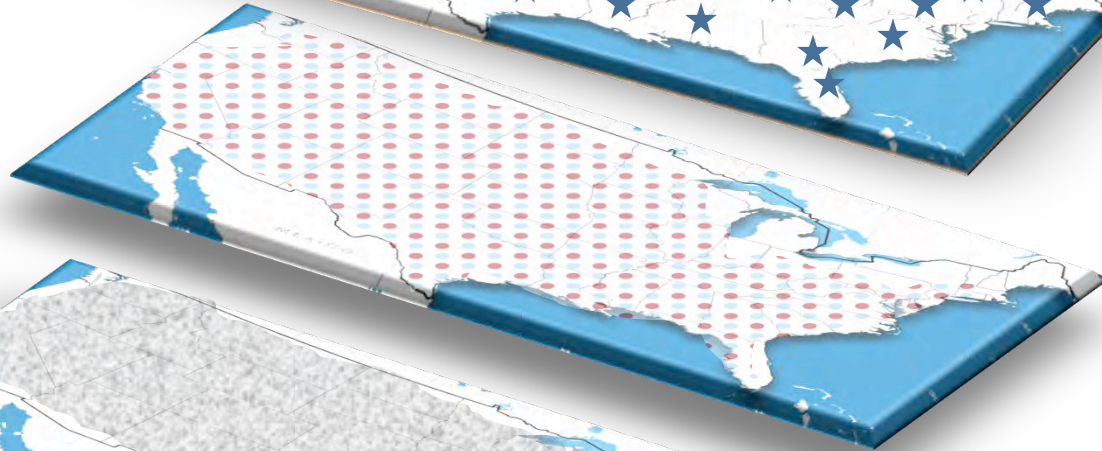
I-Corps Sites

NCIIA collaborates with sites to create pipeline of innovators



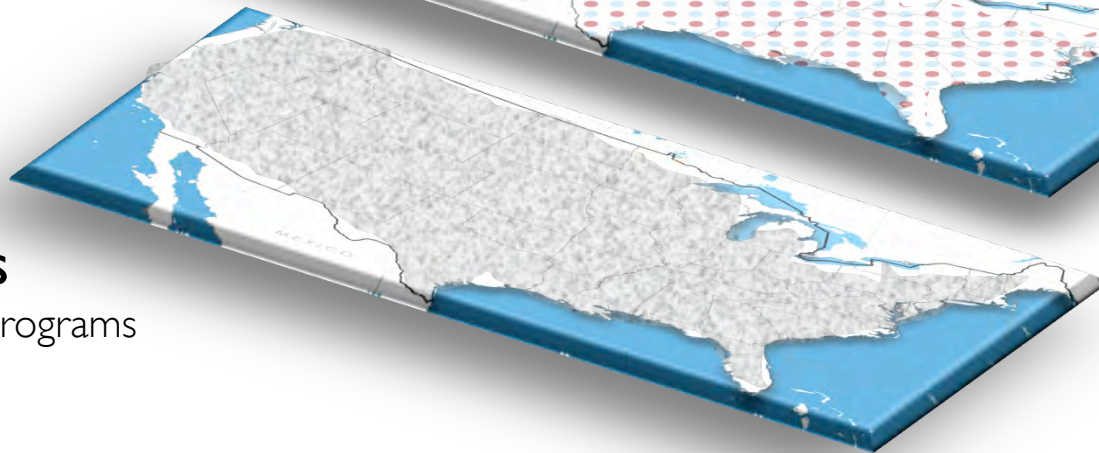
I-Corps Mentors

NCIIA role as coordinator

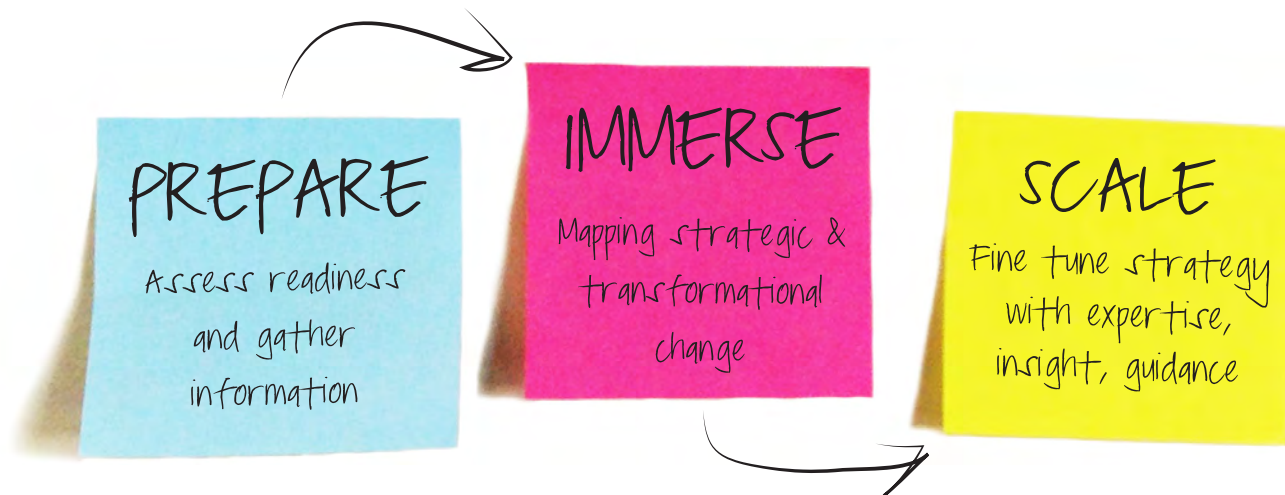


I-Corps Teams

NCIIA runs training programs



How do you get from a great idea to impact?



XCELERATOR

ACCELERATING IMPACT AND TRANSFORMING LIVES
THROUGH INVENTION AND INNOVATION



EPICENTER

Join the Epicenter community and help empower undergraduate engineering students to bring their ideas to life for the benefit of our economy and society.

UNIVERSITY INNOVATION FELLOWS

training and support for engineering students to lead entrepreneurship and innovation movements on their campuses

PATHWAYS TO INNOVATION

program that guides teams of faculty and administrators through a process of institutional change in engineering education

RESEARCH

studies on program models, entrepreneurial interests of engineering students, and ways to infuse entrepreneurship into technical engineering classes

 epicenter.stanford.edu

 facebook.com/EpicenterUSA

 [@EpicenterUSA](https://twitter.com/EpicenterUSA)



Stanford
University





Offers undergraduate students in engineering and other fields the training and support to lead innovation and entrepreneurship movements on campus

118 Fellows and Candidate Fellows at **92** institutions

Fellows held 124 activities in 2012-13, reaching **9,000** faculty and students

FALL APPLICATION DEADLINE: September 8, 2014

dreamdesigndeliver.org/apply



Pathways to Innovation

The Pathways program enables engineering programs to develop widespread, effective and accessible innovation and entrepreneurship formal and informal offerings for undergraduate engineering students.

➤ **Next RFP: Fall 2014**



Pathways to Innovation
epicenter.stanford.edu

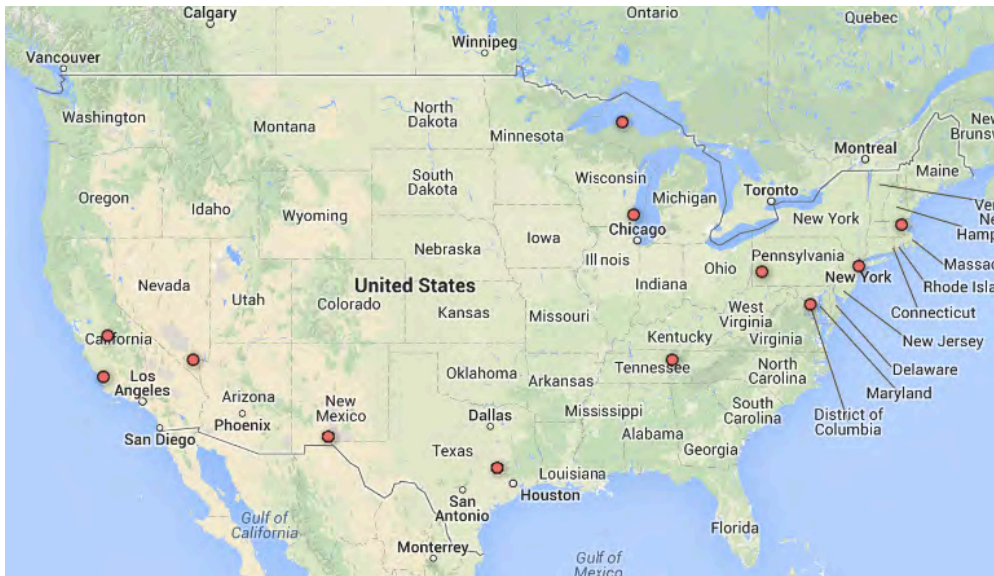


Pathways to Innovation

*A 1-2 year program for **embedding innovation and entrepreneurship** in undergraduate engineering education*

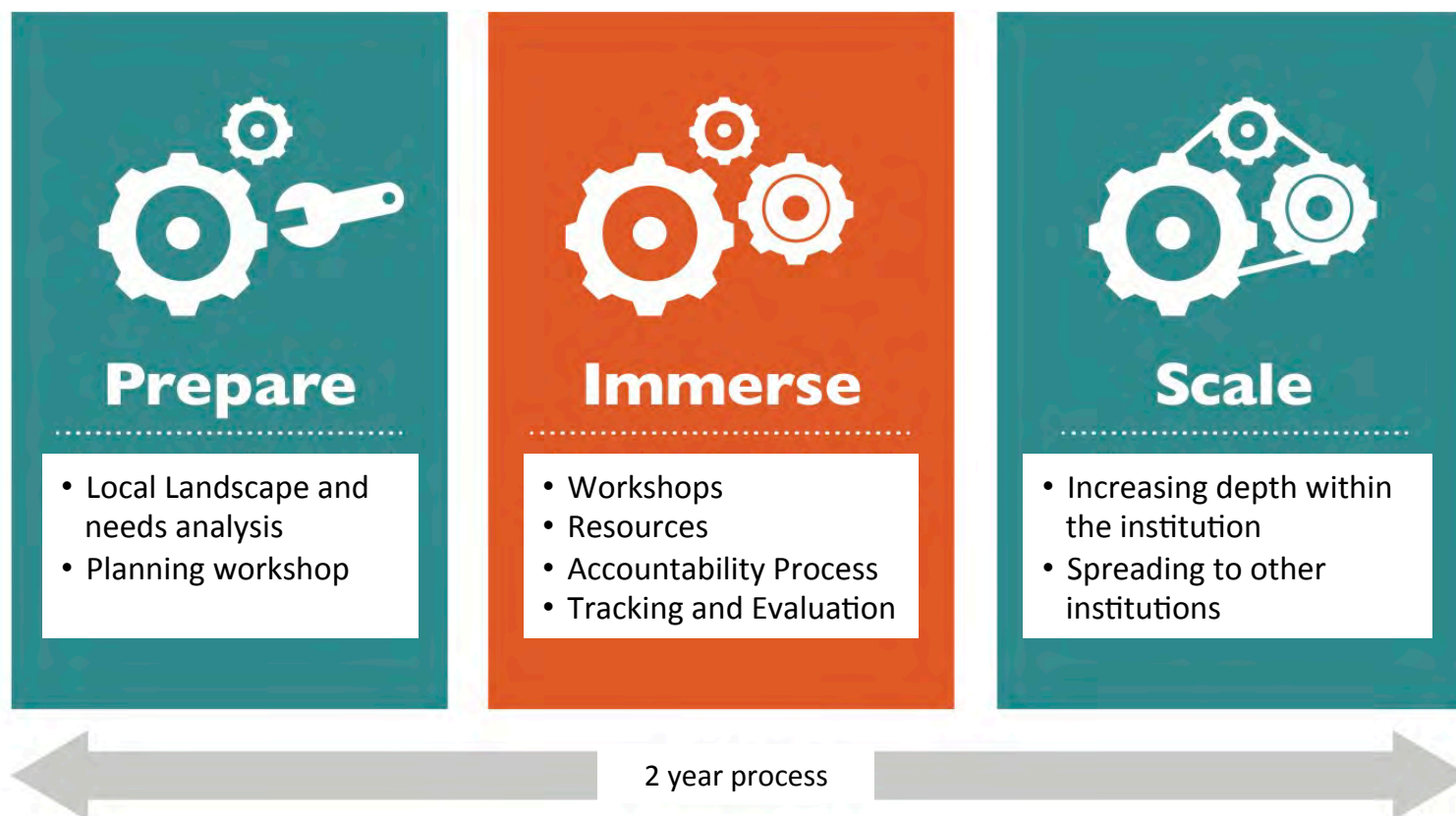
- ◆ Cohort of schools engaged in change process
- ◆ Customized approach based on a careful assessment of the school's needs, assets, and constraints
- ◆ Support: accountability, coaching, library of exemplary models, access to emerging research, travel stipends

Pathways Institutions



- Cal Poly San Luis Obispo
- UC Merced
- UNLV
- New Mexico State
- Texas A&M
- Michigan Tech
- U Wisconsin – Milwaukee
- Tennessee Tech
- Univ. of Pittsburgh
- Howard
- Cooper Union
- U Mass Lowell

Pathways to Innovation



- Designed to enable change at institutional as well as departmental levels
- Required commitment from leadership and grassroots faculty change team
- Based in research and proven change models combined with access to models and materials from Epicenter research

Institutional Commitment

- ◆ Team Leader: institutional access, at least 10% time over 1-2 years
- ◆ Action Team: dean(s), faculty, other campus staff involved in I&E, institutional research staff
- ◆ Willingness to implement plans & share findings within a community of practice

Questions?



More Information

Epicenter

Pathways to Innovation

Liz Nilsen, Senior Program Officer: lnilsen@nciia.org

University Innovation Fellows

Humera Fasihuddin, Senior Program Officer: humera@nciia.org

Funding

E-Team Program/VentureWell/BME Competitions

Joseph Steig, Director of Venture Development

Email abstracts/schedule a time to talk: eteams@nciia.org

Course & Program, Sustainable Vision

Jennifer Keller Jackson, Senior Program Officer

Email abstracts/schedule a time to talk: facultygrants@nciia.org

