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.
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.

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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

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<th>Activities</th>
<th>Outputs</th>
<th>Short-Term</th>
<th>Mid-Term</th>
<th>Long-Term</th>
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<tr>
<td>C&amp;P, E1-E3, &amp; SV Grants</td>
<td># students funded, trained, and mentored through NCIIA funded activities</td>
<td>Increased I&amp;E skills/experience/knowledge</td>
<td>Increased I&amp;E self-efficacy</td>
<td>Engagement in alumni network?</td>
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<tr>
<td>Training Programs</td>
<td></td>
<td>Increased I&amp;E attitudes/aspirations</td>
<td># students who invent new products</td>
<td># students who successfully innovate/commercialize inventions</td>
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<tr>
<td>University Innovation Fellows</td>
<td></td>
<td># E1 applications from students in NCIIA funded activities</td>
<td># students who found or work with tech start-ups (1,5,10 years)</td>
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<tr>
<td>Venture Competitions</td>
<td></td>
<td>% ventures eligible for/funded by E2 grants</td>
<td># students who acquire investment or other funding for ventures or innovations</td>
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<tr>
<td>VentureWell</td>
<td></td>
<td>% ventures eligible for/funded by E3</td>
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IMPACT
Student Knowledge, Motivation, and Action
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
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.
We’ve learned a lot about entrepreneurship. Perhaps our curriculum should reflect what we’ve learned? - Steve Blank

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?

**PREPARE**
Assess readiness and gather information

**IMMERSE**
Mapping strategic & transformational change

**SCALE**
Fine tune strategy with expertise, insight, guidance

**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](http://epicenter.stanford.edu)  [facebook.com/EpicenterUSA](http://facebook.com/EpicenterUSA)  [@EpicenterUSA](http://twitter.com/EpicenterUSA)
University Innovation Fellows

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
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

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

- Prepare
  - Local Landscape and needs analysis
  - Planning workshop

- Immerse
  - Workshops
  - Resources
  - Accountability Process
  - Tracking and Evaluation

- Scale
  - Increasing depth within the institution
  - Spreading to other institutions

- 2 year process

• 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
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University Innovation Fellows
Humera Fasihuddin, Senior Program Officer: humera@nciia.org

Funding
E-Team Program/VentureWell/BME Competitions
Joseph Steig, Director of Venture Development
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Course & Program, Sustainable Vision
Jennifer Keller Jackson, Senior Program Officer
Email abstracts/schedule a time to talk: facultygrants@nciia.org