NCIIA Proposal Preparation

April 1, 2014

Laboratory for IT Entrepreneurship

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Agenda

- NCIIA: Organization Overview & Mission
- Programs Overview
- Programs for Students: E-Team Program
- Requirements & Application Process
- Selection Criteria & Intellectual Property
- Proposal Components
- Example of Funded Proposals
- Q&A

NCIIA – Organization Overview and Mission

- NCIIA: National Collegiate Inventors and Innovators Alliance
- Private 501(c)(3) organization
- **Members**
  - Nearly 200 colleges and universities from all over the United States
- **Core Activities**
  - Funding and training for faculty and student technology innovators from member organizations to help them bring their concepts to commercialization
- **Mission**
  - Creating "*experiential learning opportunities for students and successful, socially beneficial innovations and businesses*"

NCIIA

Programs Overview

- **Training Programs**
  - I-Corps
  - Xcelerator
  - Research To Innovation (R2I)
- **Programs for Faculty**
  - Course and Program grants
  - Sustainable Vision grants
- **Programs for Students**
  - **E-Team Program:** Funding of up to **$75,000**, plus training & coaching
  - Biomedical competitions
  - University Innovation Fellows
  - VentureWell

E-Team Program – Overview

- **What does the program offer?**
  - Entrepreneurial and venture coaching
  - Experiential workshops
  - Funding of up to $75,000 in three phases
- **Who can participate?**
  - Collegiate students and student/faculty teams
- **What is the goal?**
  - Help realize the commercial success of market-based technology inventions/innovations

What is an E-team?

- NCIIA defines an E-Team as a

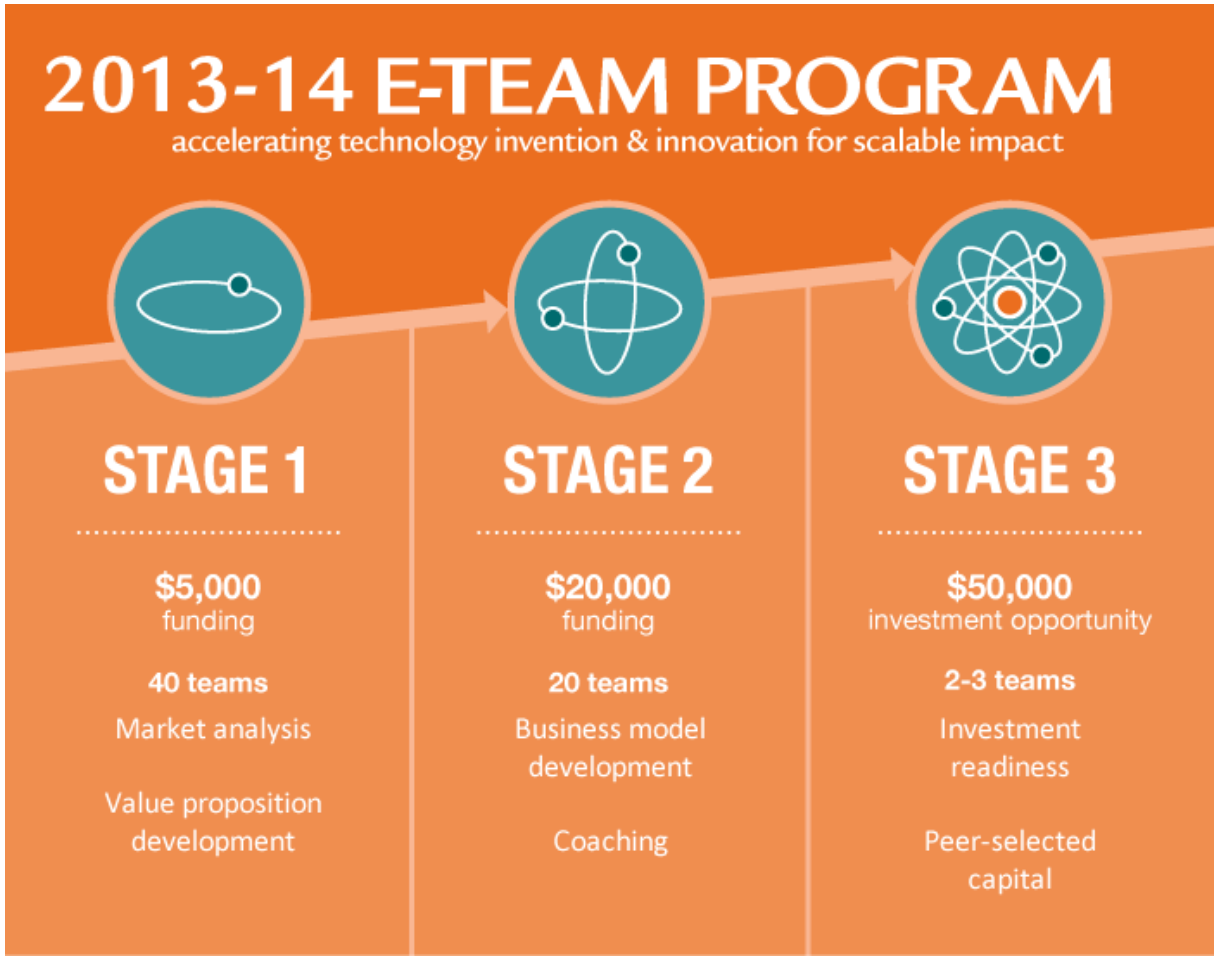
  "multidisciplinary group of students, faculty, and industry mentors working together to bring a technology-based invention (product or service) to market"

- The "E" stands for entrepreneurship

E-Team Program - Stages

- **Stage 1: up to $5,000**
  - Funding is provided to attend a three-day workshop on market analysis and value proposition development.
- **Stage 2: additional funding of up to $20,000**
  - Teams will attend an intensive workshop and 6 monthly sessions of coaching to further develop their business model
- **Stage 3: up to $50,000 for 2 to 3 teams**
  - Eligible Stage 2 teams may be invited to participate to the VentureWell Program
    - The focus of this program is to develop a "lens of the investor" perspective.
    - **Venture forum** at the end to present to potential investors

E-Team Program - Summary



E-Team – Requirements

- Minimum of 2 active undergraduate or graduate students
- If members of an E-Team come from different universities, at least 1 of these schools **must** be a member of the NCIIA & administer the grant (George Mason University is a member)
- A faculty advisor to act as Principal Investigator
  - Responsible for the disbursement of grant funds
- Other team members
  - Advisors from within and outside the university that will contribute to the team's success
  - Strongly recommended: both technical and business expertise represented on the team
- No maximum team size
  - Average size of successful teams: 4-10 members

Eligible Technology Inventions & Innovations

- Scalable, commercially promising, and with a positive impact on society and/or the environment
- ***Examples***
  - Biomedical devices, health care solutions, and/or global health-based technologies
  - Clean technologies and green/sustainable materials
  - Technologies for low-resource settings (US or internationally) that address poverty alleviation and basic human needs such as affordable energy, clean water, health and medical devices, agriculture, etc.
  - Other compelling technologies that meet the program criteria

Application Process

- Funding is awarded to institutions
  - not directly to individuals or teams
- Program applications must be submitted online
  - The application process requires to create an NCIIA account
    - You may start, save, stop, and return to your online proposal at anytime before submitting
  - The Office of Sponsored Programs at George Mason University will submit the application on behalf of the E-Team

Selection Criteria

- Technology innovation and feasibility
- Business model and commercial potential
- Team composition, commitment, expertise, and institutional support
- Positive social and/or environmental impact (preferred but NOT Required)

Intellectual Property Policies

- Ownership of intellectual property resulting from E-Team work should belong to the students on the team
- NCIIA takes no financial or ownership interest in the projects funded by its E-Team grants
- Applicants advised to protect their intellectual property before submitting a proposal

Proposal Components

- **Required**
  - Title page
  - Proposal narrative (no more than 5 pages)
  - Letter(s) of support (minimum of 1, maximum of 3)
  - Team member resumes

- **Optional**
  - Additional appendices
  - Weblinks (websites, video links, articles, etc.)

Proposal Narrative

- **Technology and value proposition (1-2 pages)**
  - What is your invention or technology innovation?
  - Is it technically feasible? Have you demonstrated proof of the key principle(s)? Have you done a "prior art search"?
  - Have you developed a physical prototype or proof of concept?
    - If yes, document the development of your prototype with drawings, digital documentation, or data demonstrating its effectiveness.
    - If not, describe your plans for proof of concept
  - What problem are you solving for what customers? In what way is it better than other solutions on the market?
  - What large-scale impact would successful adoption of your innovation create (e.g., lives saved, amount of $C0_2$ reduction, money saved. etc.)?

Proposal Narrative (cont'd)

- **Business model and market (1-2 pages)**
  - Describe the market and customers that you intend to reach, and explain how you will engage them
    - Who are your target customers, and have you talked to any?
      - ***Note***: your customers may be different from the end users of your product/service
  - How does what you are proposing compare with the competition?
  - What is your commercialization plan?
    - How will you approach the manufacturing, marketing, sales, distribution, and support of your product or service?
  - How do you intend to make this economically sustainable?
    - Describe the costs to produce and support your product and your expected sales price
  - What is the structure you envision for your venture?
    - Do you expect to form a for-profit or joint venture?
    - Have you considered a licensing arrangement?
    - Do you have rights to any key intellectual property?

Proposal Narrative (cont'd)

- **Team (half page)**
  - Who are the key team members and what roles will they play (1-2 sentence on each)?
  - Who will lead the technical and business model development?
  - Do you have outside mentors, advisors, and/or partners?
  - If your team is working on a technology for low-resource settings in the US or aboard:
    - Identify any partners (individuals, community leaders, nonprofits or NGOs, etc.) outside of your institution who will provide connections and access to the field and end-users
    - Identify any partners who can help the team commercialize any resulting technologies
    - Explain how the team will address possible language, cultural, and social barriers.
      - Has the team traveled to the community in which you propose to work?

Proposal Narrative (cont'd)

- **Work plan and outcomes (1 page)**
  - Describe your plan for moving forward (from today to initial sales)
    - In a table format, list the 10 to 15 high-level steps with a timeline that will get you from today to readiness for initial sales
  - What does success look like and how will you measure it?

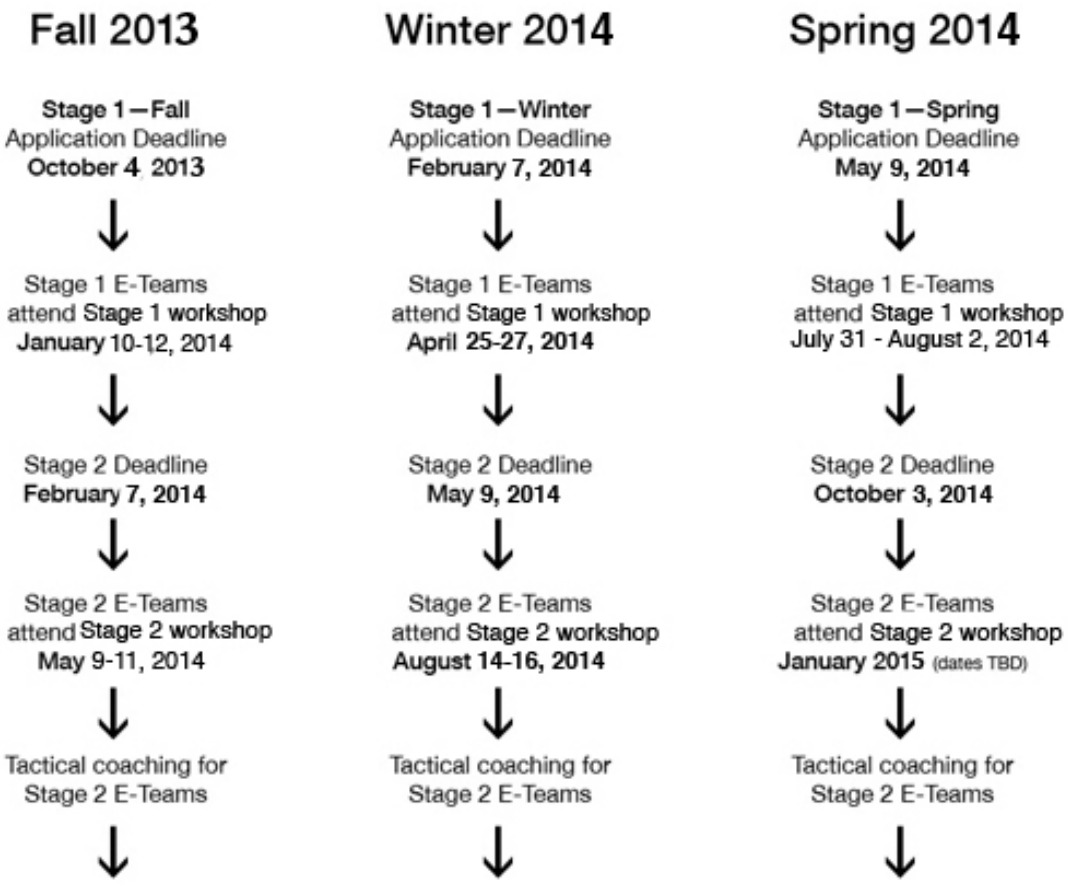
Optional: Appendices & Weblinks

- Up to 5 additional appendices may be included
- May include but not limited to:
  - Images demonstrating design and/or technical feasibility
    - drawings, photographs, etc.
  - A summary of prior art
  - Any data collected as part of testing your technology
  - Any other relevant supporting materials
- Weblinks
  - Links to online articles, videos and/or other relevant online data
  - Videos not required, but can help your proposal stand out or *demonstrate how your technology works*

Program Submission deadlines

- **3 annual submission opportunities**
  - Fall, Winter, Spring
- **Next deadline: May 9, 2014**
- 2014/2015 academic year submission deadlines to be announced soon

E-Team Program Schedule 2013/2014



Stage 3 E-Teams selected in 2013 and 2014 depending on progress.

Funded Proposals – Examples – Stage 1

- **Acomni, LLC – University of Arizona**
  - A thermostat monitor able to learn the characteristics of each house and, based on the weather forecast and a user-defined schedule, provide up-to-date energy usage and cost predictions and make recommendations
- **Byrd on a Twigge - Sense™ - Texas A & M University**
  - An Android smartphone add-on equipped with sensors that allows the user to measure various things—temperature, humidity, air quality, etc.—and view readouts on the phone.
- **Dr Addams – Case Western Reserve University**
  - A surgical simulator that teaches nurses how to hand surgical instruments to the operating in a way that is more realistic than the training and practice methods currently available

Funded Proposals – Examples – Stage 2

- **ChallTech, LLC – Lehigh University**
  - A way to capture a rowers' workout data on a mobile device, synchronize it with an online website and provide an online team management system
- **OttoClave – Case Western Reserve University**
  - A new autoclave, designed for rural health clinics in South Asia, which simplifies the sterilization process by giving users instructions in their native language and telling them when instruments are completely cleaned
- **Rural Trade Communications - University of Colorado at Boulder**
  - An off the grid communication platform, supported by subscription fees

Questions?