



INNOVATION CROSSROADS

An early stage entrepreneurial fellowship program at Oak Ridge National Laboratory

Our Premise:

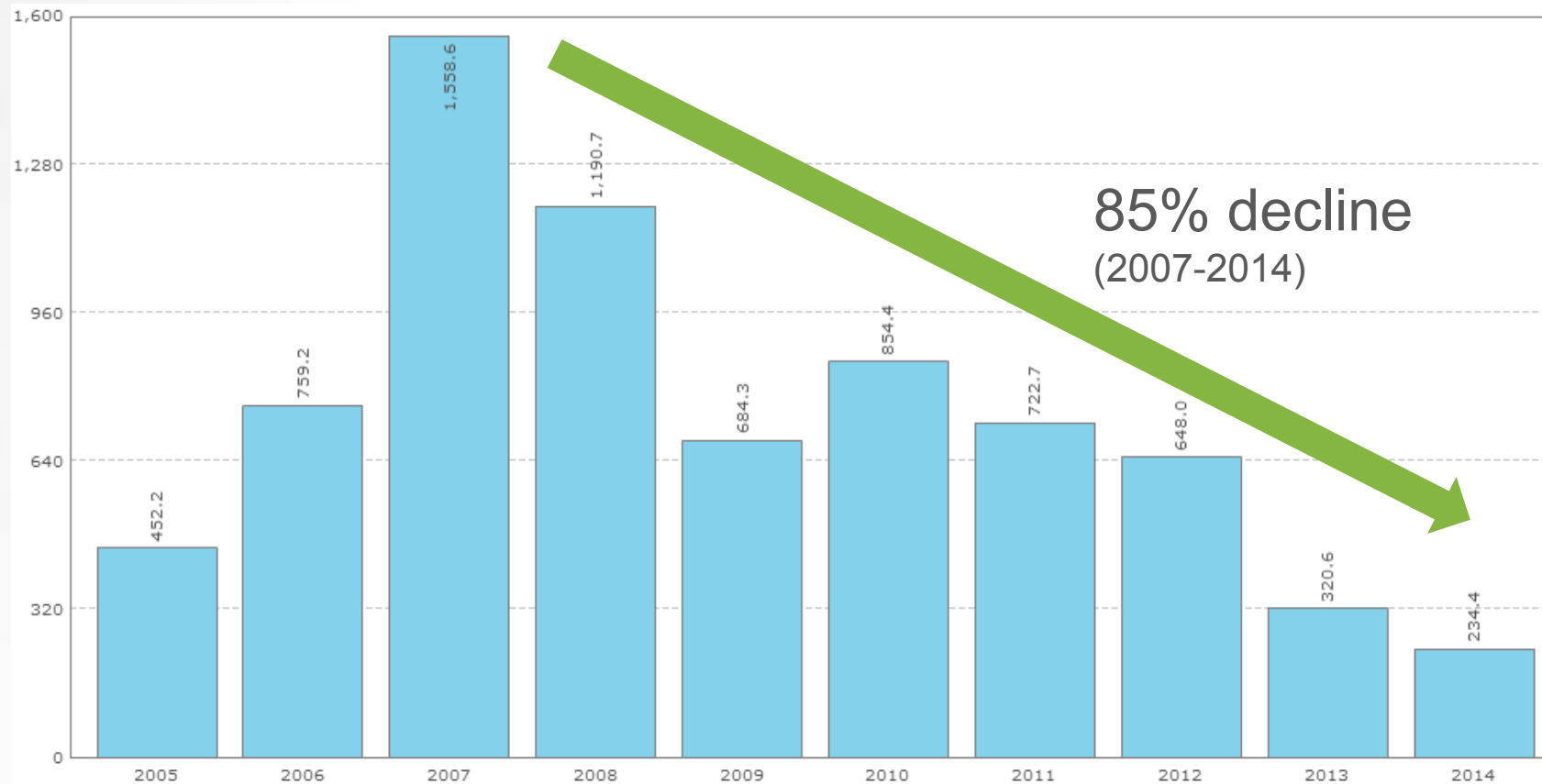
Hardware-based technology startups are challenging

- They require a great idea, understanding of the market, creation of sound business models, extensive R&D efforts and prototype development, manufacturing processes...*and customers!*
- This is a time-consuming process, and entrepreneurs need to “de-risk” their ideas to find investors.
- Why not leverage ORNL resources to help the best and brightest cross the chasm?



Need for additional Clean Energy Technology Investments

Global Early-Stage Cleantech VC Investment: 2005-2014 (\$ millions)



Source: Bloomberg New Energy Finance 2015.

Note: This data includes Seed, Series A, and Tech/Early-spinoff deals.

ORNL's Innovation Crossroads Team



Tom Rogers
Director



Dan Miller
Chief Operating Officer



Kelly Wampler
Administration & Marketing

Eligibility Criteria

Candidates must:

- Have PhD or equivalent experience
- Be focused on energy or advanced manufacturing innovation
- Impact DOE missions and leverage ORNL capabilities
- Be willing to relocate to the Knoxville-Oak Ridge area
- Be US citizens or lawful permanent residents at time of application



Innovator Benefits

- A personal stipend, health insurance, and a modest travel budget for up to two years
- Office and collaboration space, along with access to ORNL's world-class research facilities and experts
- Guidance from a network of mentors, partners, and investors
- R&D funding up to \$200,000 to advance technical viability in the research lab at ORNL in the form of a CRADA



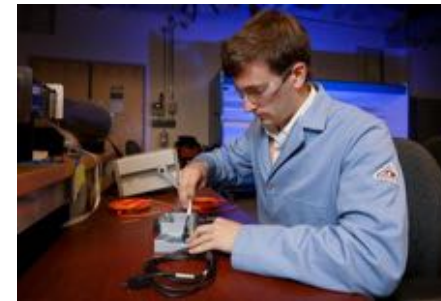
What's a CRADA?

- An agreement between ORNL and companies to conduct specified R&D activities consistent with the mission of the laboratory
- Each party provides personnel, services, facilities, equipment, intellectual property or other resources via the CRADA
- For Innovation Crossroads, up to \$200k* of DOE funds will be used to finance ORNL's portion of the project. Innovators will be asked to provide in-kind contributions
- Innovation Crossroads staff will assist innovators with introductions to candidate PIs and with the development of CRADA statements of work, schedules and budgets
- CRADAs should be completed during the innovator's 2-year appointment

**Subject to availability of funds. DOE funds ORNL through appropriations.*

Business guidance is a key element of Innovation Crossroads

- Business Model Development through an initial bootcamp
- Participation in Tennessee Energy Mentor Network
- Market research assistance from University of Tennessee Bredesen Center
- Advisory Boards established for each company
- Free financial and legal assistance from partners
- Opportunities to interact with successful energy entrepreneurs
- Frequent introductions to industry contacts and investors
- Introductions to the local entrepreneurial ecosystem





INNOVATION CROSSROADS

Preview the nation's top innovators embedded at Oak Ridge National Laboratory and other DOE labs

America's brightest minds in advanced energy will pitch live on stage at the interactive lunchtime event.

The Department of Energy partners with national labs around the country to develop the next generation of energy entrepreneurs. These labs work with entrepreneurial scientists and engineers on early-stage R&D that could lead to new energy businesses.

At 36|86, top startups from ORNL's Innovation Crossroads accelerator and other DOE labs will pitch live on stage. You don't want to miss it!

**Thursday, August 30
11a to 12:30p**

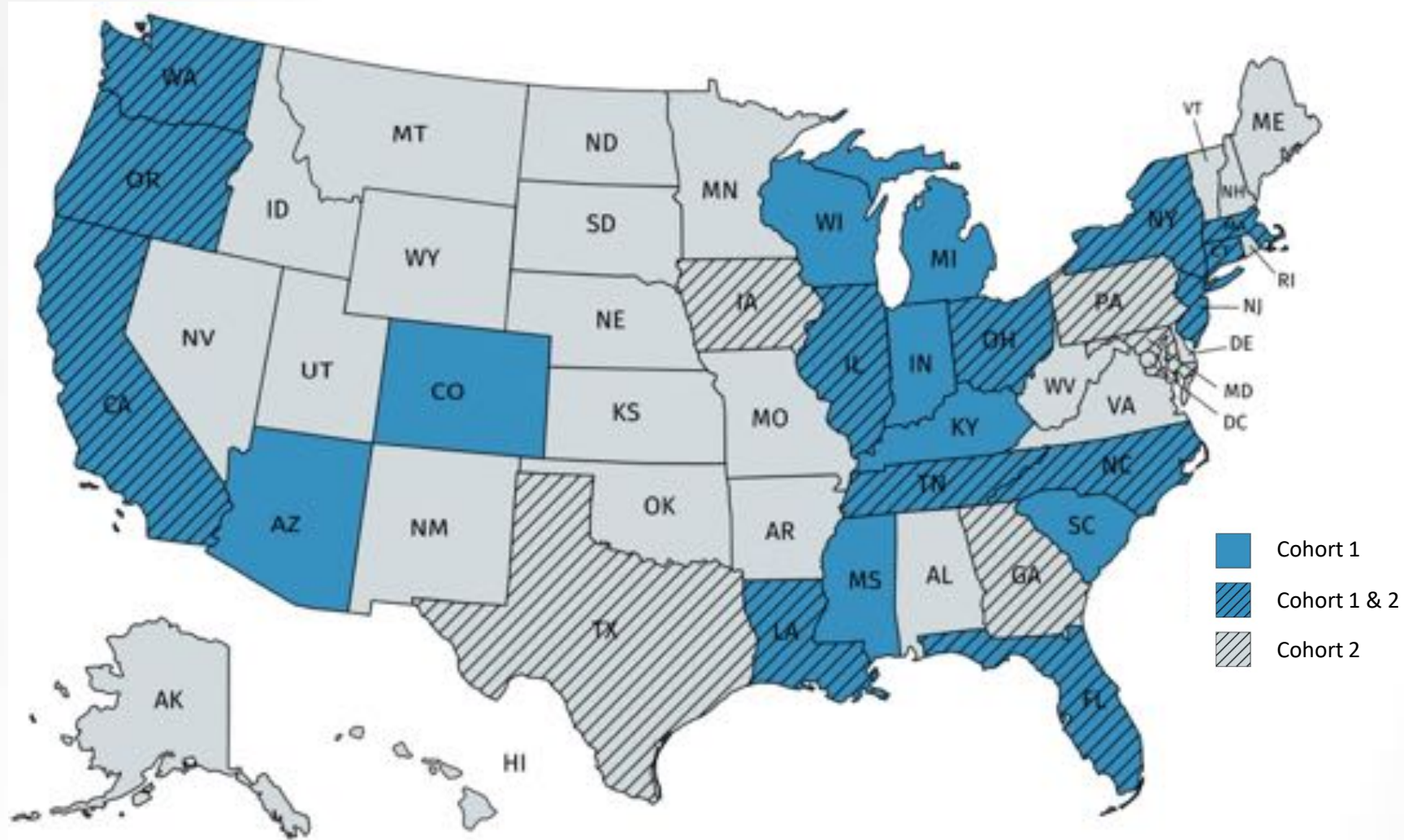
Want to attend this pitch event?

Get your pass today at attend3686.com

Use code ORNL for 10% off



In the past 18 months we've received nearly 100 applications from 25 states!



Innovation Crossroads Innovators – Cohort 1



Samuel Shaner & Matthew Ellis
Yellowstone Energy
Massachusetts Institute of Technology



Michell Ishmael
Active Energy
Cornell University



Anna Douglas
SkyNano Technologies
Vanderbilt University



On-boarded: May 2017
Fellowship Completion: May 2019

Innovation Crossroads Innovators – Cohort 2



Don DeRosa

Eonix

State University of New York at Albany



Shane McMahon

Lux Semiconductors

State University of New York at Albany



Justin Nussbaum

Ascend Manufacturing

University of South Florida



Megan O'Connor

Nth Cycle

Duke University



Matt Smith

TCPoly

Georgia Institute of Technology



On-boarded: May 2018

Fellowship Completion: May 2020

Cohort 3 Key Dates

- Key Dates:
 - September 6, 2018: Applications Open
 - October 29, 2018 at 5:00PM (EDT): Applications Close
 - Reviews of Written Applications
 - Phone Interviews
 - January 2019: Semi-Final Interviews
 - February 2019: Final Interviews
 - May 2019: Cohort 3 Begins
- Webinar Dates:
 - Thursday, August 9th at 2:30pm (EDT)
 - Thursday, September 6th at 2:30pm (EDT)
 - Thursday, October 4th at 2:30pm (EDT)

Six-page Application Content

- Resume (one page)
- Project abstract (one paragraph)
- Tell us about yourself (one page)
- Tell us about your technology concept (two pages)
 - Use the Heilmeier catechism as a guide for what's most relevant.
 - What is the potential impact on DOE's mission?
- Why ORNL and Innovation Crossroads? (one page)
- What else should we know? (one page)

Heilmeier Questions

- What are you trying to do?
 - Articulate your objectives using absolutely no jargon.
- How is it done today, and what are the limits of current practice?
- What is new in your approach and why do you think it will be successful?
- Who cares?
 - If you are successful, what difference will it make?
- What are the risks?
- How much will it cost?
- How long will it take?
- What are the mid-term and final “exams” to check for success?

Evaluation Criteria

- How innovative is the proposed approach
- Potential market impact
- Applicant's technical understanding of the problem and proposed solution
- Evidence that ORNL capabilities can help advance the idea
- Soundness of the business concept
- Likelihood that the idea can be matured in the 2-year program

COHORT 3 APPLICATIONS OPENING SEPTEMBER 6th

TO LEARN MORE, PLEASE VISIT: INNOVATIONCROSSROADS.ORNL.GOV

Program

An early stage entrepreneurial fellowship program at Oak Ridge National Laboratory sponsored by the Department of Energy's Advanced Manufacturing Office

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Information Sessions

- August 9, 2018 – Informational Webinar
- September 6, 2018 – Informational Webinar
- October 4, 2018 – Informational Webinar

Eligibility Requirements

- Must have PhD or equivalent experience
- Must be focused on energy or manufacturing innovation
- Must leverage ORNL R&D capabilities and have an impact on Department of Energy missions
- Must be willing to relocate to the Knoxville-Oak Ridge area
- Must be US citizen or lawful permanent resident at time of application

Benefits

- Fellowship stipend for up to two years, including travel and health benefits
- R&D funding support to be used in collaboration with ORNL researchers
- Business mentorship, entrepreneurial training, and introductions to potential customers, partners, and investors

Learn More

innovationcrossroads.ornl.gov

Contact Us

innvcrossrds@ornl.gov

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