

Sustaining Innovation, Session 1b

Challenging and Enjoying

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Overall Objective: To share ideas, experiences and best practices, and to discuss strategies to sustain innovations after the PFI grant has ended.

Process Followed

- Seeding questions generated through Brainstorming prior to the the workshop.
- Ten questions generated
- No prioritization of the questions
- All questions discussed at the session
- Approx 30 people attending the session

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1. Success stories of PFI projects that have obtained succeeding funding from other programs of NSF or other agencies, private sectors or resulted in patents, copyrights, industrial standards, and royalties. How to achieve these successes
 1. Succeeding funds have been acquired through other federal agencies such as DOE and the Army at a relatively larger magnitude. Supports have been also obtained through state legislatures for both research and education.
 2. Support from industries has been obtained through agreement between university and companies via meetings between Vice-President and CEOs.
 3. Through leveraging PFI funds, matching funds have been obtained from industrial partners at relatively smaller magnitude.

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2. Has the PFI project actually altered the campus culture for promoting innovation and commercialization? If not, how to improve it?
 1. Courses on entrepreneurship and technology transfer have been developed across the campus.
 2. Some programs directly involve undergraduate and junior high-school students.
 3. Companies and industries involved have higher potential to hire graduate students.
 4. An international component has been integrated in some PFI projects and makes the PFIs successful in international outreach.
 5. PFIs enable students to have a better appreciation of the real world through industrial and governmental partners.

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3. Highly-risky and creative research may not be matured enough within the PFI time and budget frame for direct commercialization. How to solve this problem? Can we have potential second round funding for those projects that need additional developments to achieve maturity (with requirements that industrial cash support is committed)?
1. A second round support is considered needed by few PFI projects to achieve their final goals of sustainability. However, 1:1 cash matching is considered challenging for small-company partners.

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4. Did the PFI project alter the resources that are committed to the Tech Transfer office to enable rapid development of technologies (licensing) or launch companies (spin out or spin in) with SBIR or Angel fund assistance? Is there possibility for SBIR to pick up some PFI ideas for further development or implementation?
1. Different states may have different practices. SBIR may not have rapid infusion of fund. Funds from Venture Capital might be a good source.

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5. How to increase and measure the success of the PFI education components? How to evaluate the long-term impacts resulted from the education components?
 1. Attracting and retaining graduate students is itself a measurement of educational success.
 2. Developed courses will long last.
 3. Industry is more willing to hire students with PFI experience.
 4. It is possible to track students for their career path.

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6. Are there success stories on international outreach? Is there any potential international opportunity perceived ?
 1. Success with Denmark
 2. 10+10 program, instituting the innovative research and education collaborations between the top 10 California institutions and the top 10 Chinese institutions.
 3. IP and patent with China should be carefully addressed.

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7. What campus derived incentives and recognition are provided that don't impede faculty entrepreneurs?
 1. Some state laws allow faculty to use state resources for research etc on their own.
 2. Junior faculty may be affected in their tenure process.
 3. There is a lack of criteria to evaluate the academic values of patents.

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8. Can faculty maintain part-time appointments in their campus units while serving as officers in private ventures?
 1. It is not allowed by some universities.
 2. Some universities require the disclaiming of how much is made.
 3. Many universities are flexible on this.

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9. Are the campus COI/COC policies elastic enough to ensure faculty can follow their innovations to the marketplace?
 1. PSU encourages faculty to serve company CEOs or company officers.
 2. Purdue may monitor the faculty's activities. But to the committee members, why I should monitor other faculty's activities?

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10. Specifically what can the PFI community do to achieve sustainability?
 1. It is suggested that NSF directors talk to congress to influence national technology policy.
 2. This workshop is very informative and inspiring. We may need the next workshop.
 3. It is beneficial to invite state legislatures into the loop.
 4. It is helpful to the PFI community if successful federal demonstration projects can be developed.