Access and Affordability Initiatives and Invent Penn State

Strategy to Action

Presented to the Board of Trustees
February 26, 2016
Strategic Planning – University-wide Level

**Forcing Function – Defines Direction**

1. Built upon landscape, specific unit plans or actions
2. Creates basis for prioritization as resources are available
3. Guides the recruitment of resources (new or redistribution)
4. Enables the development of building blocks that exceed the capability or interest of a single unit
Strategic Planning – University-wide Level

Consider two examples:

1. Access and affordability
2. Promotion of economic development, job creation and student career success

Both prioritized as university-wide strategies
Both have specific goals that define general metrics
Both are resource-dependent (defines success)
Critical Goals: Highest quality education at a cost that ensures access for our citizens.
1. Increase retention and graduation
2. Decrease total cost of a degree (time to degree is key)
3. Decrease rate of borrowing
4. Decrease attrition due to finances—need-based students take longer to graduate, have lower retention rates and higher loan rates.

Six Programs: 5 given as examples
1: Pathway to Success Summer Start (PaSSS)

- Goal: Increase retention to graduation; decrease time to degree
- 2015: 135 “at risk” students at 6 campuses; 2016: 300 at 9 campuses
- 1st Summer: $1,500 scholarship for 2 summer classes; $1,000 available for on-campus job summer/fall + mentoring
- 2nd Summer: Up to $3,000 for 4 classes; $2,000 for on-campus job
- Potential 18 credits extra at start of second fall semester
- Designed to be self-sustaining with tuition; assessing cost, ability to scale, effectiveness on retention – eventually grad rates
2: Student Transitional Experiences Program (STEP)

- Goal: Remove (on average) extra semester to graduation for change of campus transition from Commonwealth Campuses to UP
- 3 colleges participating (Smeal, Engineering, HHD)
- Provost $1,000 STEP awards for students enrolled in at least one STEP course and a non-credit seminar
- Also available: On-campus employment; non-credit career prep courses; campus activities; mentoring; support services
- Assessing success to graduation; cost to scale
3: Financial Literacy

- Goal: Decreased borrowing rate; especially lifestyle borrowing
- Proposed Financial Literacy & Wellness Center to unify existing programming and extend reach -- phased staffing
- Create one-stop center for: MoneyCounts: A Financial Literacy Series; the Student Financial Education Center; freshmen seminars; other financial literacy resources
- [https://financialliteracy.psu.edu/](https://financialliteracy.psu.edu/) went live May 2015
- Assessing borrowing rates
4: Online Courses

- Goal: Decrease time to degree through increased access to highly enrolled ‘entrance to major’ classes at CC required for graduation but offered intermittently
- Collaboration between World Campus and VP for Commonwealth Campuses
- Focus: Online content to be available to entire university
- CC will provide faculty with content expertise, although financial support has not been identified
- Assess impact on time to degree
5: raise.me Micro-scholarship Program

- High school students (grades 9-12) sign up to earn credits toward a 4-year PSU scholarship by completing rigorous academic courses, developing strong study habits and participating in leadership opportunities.
- Currently available to students in 5 Phila. area high schools and 6 rural PA schools.
- Encourages academic prep and extracurricular choices while in high school that increase readiness and student success in college.
Additional Planning and Assessment

• Models of one-stop advising for student needs: academics, financial aid, internships, career services, tutoring, study abroad

• Assess reasons/consider incentives for students who have completed a high number of credits with a strong GPA, but haven’t graduated (sizable population fits this profile)

• Numerous potential programs including direct scholarships (increase of $5M in Provost and Chancellor awards)
Factors that will Define Success

• Only one program may be self-sustaining on tuition

• Source of funds for pilots: $6M from investing $150M that normally ensures PSU financial stability (must return if financial need)

• For successful programs – challenge of scaling

• Experimenting to tackle age-old problem of low graduation rates for “at risk” students -- some programs may not be cost-effective; multiple years needed to assess success

• Resource approach -- capital campaign; investment $ (at risk?)
Goal: Drive job creation, economic development and student career success

Programs: Central investment and wide-ranging programs starting in colleges and campuses (separate document describing program details)
Invent Penn State Thematic Areas

**Fulfilling our land-grant mission in the 21st century**

1. Transforming our ability to promote economic development (internal)
2. Increasing external visibility
3. Creating capacity and capability to develop startups and to attract companies (building ecosystems)
4. Enhancing student entrepreneurship and an already strong path to student career success
1: Transforming our ability to promote economic development (Internal)

- Entrepreneurships-in-Residence (pending Commonwealth funding)
- Partnerships across colleges and programs
- Ramp Up Office of Research Capacity
- Faculty Reward Structures
Example: Fund for Innovation

- $1.5M investment to advance the commercialization of university innovations
- Awardees selected by participating colleges (7 colleges participated in 2015; up from 5 in 2014)
- Proof-of-concept and proof-of-relevance studies help prove out products
- Successful ‘kick start’ funding awardees receive up to $75,000 for new venture
Example: Two New Penn State Law Clinics

• Entrepreneur Assistance Clinic (opened fall 2015)
  – Assists startups with wide range of legal matters, excluding intellectual property
  – Will collaborate with students in IP Clinic

• Intellectual Property Clinic (to open fall 2016)
  – Will help determine patent protection eligibility
  – Law students will provide legal counsel on IP issues
Example: Investment in Invent Penn State Team

• Jeff Fortin, assoc. VP for research; director, Office of Industrial Partnerships
• James Delattre, assist. VP for research and industrial partnerships
• Nena Ellis Koschny, assist. director, marketing and communications
• Don Mothersbaugh, assist. director of industrial partnerships
• Jim Pietropaolo, working with Ben Franklin Tech Partners
• Lidia Sobkow, technology licensing officer
• Machelle Reese, admin. coordinator
2. Increasing external visibility

• Showcase University Technology and IP
• Competitions for Startup Funding
• Facilitate Connections with PSU Companies and Investors

2015 IST IdeaMaker Challenge
Example: First All University IP Conference (Oct. 6-7, 2016)

- Inaugural event will showcase groundbreaking innovations, startups and tech companies
- Featuring: investor-selected tech companies, PSU student startups, PSU tech and IP available for licensing, regional companies and more
- Competition planned specifically for faculty-led startups
Example: Website for Penn State-affiliated Investor Opportunities

• Under development; expected to be live mid-2016
• Will facilitate investment in PSU affiliated companies (both larger companies and startups)
• Will provide a new way for Penn State to engage alumni
Example: New Interactive Website

Invent Penn State initiative welcomes six business startups to LaunchBox
Example: Media Opportunities

• To date, 70+ positive media placements have featured Invent Penn State
3. Creating Capacity/Capability to Develop Startups and Attract Companies

- Drive economic development
- Provide flexible, low cost space
- Create a hub of innovation
- Partnerships with business/industry

Eli Kariv ‘15 and Matt Brezina ‘03
Example: Multi-year $50K SEED Grants

- Designed to promote entrepreneurship in the community
- Awards to 6 campuses: Wilkes-Barre, Lehigh Valley, Behrend, New Kensington, Abington, Harrisburg (includes Penn State Hershey and the Dickinson School of Law)
- Community participation
- Proposals under review for the next 6 SEED Grants
A no-cost business accelerator program with co-working space for entrepreneurial teams with scalable business concept

On Feb. 15, five teams began 10-week business startup training program

Professional consultation/research resources include: Penn State’s Law Entrepreneurial Assistance Clinic and Office of Technology Management Intellectual Property Clinic; Small Business Development Center; Farrell Center for Corporate Innovation and Entrepreneurship; PSU Libraries

Permanent home planned with expanded capabilities

Ribbon Cutting March 31
Example: Innovation Park

• Penn State purchased the Technology Center, which is now being managed in cooperation with Ben Franklin
• Prominent new signage will increase visibility and value
• Funded by $18M external investment, a new 86,000 sq. ft. building offers additional entrepreneurial space in Innovation Park
Example: Building Strategic Partnerships with Industry

- New resources/processes for engaging with industry and connecting companies with our research faculty
- Over 100 company interactions with businesses large and small
- 9 full day research forums – company reps spend the day meeting faculty, students and touring labs
- 4 university-wide “challenges” on behalf of companies
- Multiple new strategic partnerships being built
Example: PSU Hosts Inaugural EdTech Summit

• Leveraging top ranked World Campus to tap $2 billion EdTech industry
• EdTech companies partnering with PSU to develop personalized learning tools; use adaptive learning technologies; and integrate smart online advising and tutoring
• Pitch to co-locate
• Partnership with industry leaders – DreamIT (top 10 accelerator); InsideTrack
4. Enhancing an already strong path to student career success

• Skills and knowledge base
• Assessing career outcomes
• Career Services
• Global Leadership in Innovation
Undergraduate Student Entrepreneurship Ecosystem

- Investor, Mentor, and Alumni Networks
- Education and Support Programs
- Incubators, Accelerators, Co-Working Spaces, and Tools
- Periodic Competitions, Events, and Funding
- Student Groups

Leveraged Penn State
Undergraduate Student Entrepreneurship Ecosystem

Investor, Mentor, and Alumni Networks

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Student Groups

Leveraged

Penn State 30DC
ENTIMiner
Center for Engineering Design and Entrepreneurship
Farrell Center for Corporate Innovation and Entrepreneurship
ENTR Major and Graduate Degree Office of Technology Management
The Learning Factory
Penn State Law Clinic
MNGT 215
LaunchBox
Innovate Park Incubator
The Make Space
New Leaf Initiative
Draper University
SCORE

Education and Support Programs

Incubators, Accelerators, Co-Working Spaces, and Tools

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Investor, Mentor, and Alumni Networks

Periodic Competitions, Events, and Funding

Student Groups
Student Entrepreneurship Ecosystem
R. Keith Hillkirk
Chancellor, Penn State Berks

- Entrepreneurship and Innovation Minor (ENTI) formerly Engineering Entrepreneurship Minor (ESHIP)
- Hospitality Entrepreneurship Option in the HM BS Program
- Electro-Mechanical Engineering Technology Program
- Mechanical Engineering Program
- Information Sciences and Technology Program (IST)
- Security and Risk Analysis Program (SRA)
- Business Program
- Accounting Program
- Biology and BMB Programs
Example: IST startup week  April 11-15, 2016

- Fifth annual celebration of successful entrepreneurs and innovators in the fields of technology and security
- Speakers from around the country
- Showcase of possibilities for enterprising students

Ayesha Khanna, president, Points of Light Civic Incubator
Example: Penn State Idea Pitch Competition

• Hosted by Smeal’s Farrell Center for Corporate Innovation and Entrepreneurship
• Gives PSU students, faculty, alumni and PA entrepreneurs the opportunity to collaborate to turn ideas into real world opportunities
• Teams compete for a share of $3,500 in prizes

Seniors Michael Black & Marlow Bryant won the 8th Idea Pitch Competition
Example: 2nd Annual Summer Founders Program

- Teams compete for $10,000 to work on their startup, social good or non-profit idea for 10 weeks over the summer
- Open to students from UP and CC
- Funded through philanthropy by alumni and entrepreneurs

2015 Competition Winners: Mary Elizabeth McCulloch, Brennan Cornell & Robert Chisena
Intercollege Minor in Entrepreneurship and Innovation (ENTI)

Colleges and Clusters

- Business: New Ventures, Technology Based Entrepreneurship, New Media
- Engineering: Social Entrepreneurship, Food and Bio-Innovation
- Communications: Communications, Arts Entrepreneurship

Campuses
- University Park
- Abington
- Berks

SP16 ENTI Enrollment
Total = 250

Course enrollments = 1,200

Under development: Liberal Arts Entrepreneurship
New Business Fundamentals Certificate
• Allows non-business undergraduates to develop fundamental business skills in finance, management, marketing and supply chain management.
• 15 credits: results in Smeal-specific transcript designation
• Ideal for students with entrepreneurial goals and plans to bring IP to the marketplace

New B.S. in Corporate Innovation and Entrepreneurship
• Enrolled first 80 students in Aug. 2015; program at capacity
Factors that will Define Success

• Metrics are both specific and general -- patents, licenses, startups to new revenues to long-term student career success

• Source of funds for pilots -- $24M from President’s capital budget and $2M from investing $50M that normally ensures PSU financial stability (must return if financial need)

• Challenge of scaling

• Experimenting/innovating to dramatically alter PSU’s role in economic development; students who start companies in PA likely to stay in PA

• Resource approach: Capital campaign; investment $ (at risk?), PA appropriation (at risk?)
In Summary

• “Forcing functions” are creating innovation at multiple levels -- many activities/$ with opportunities to co-locate (Launchbox) or collaborate (minor).

• Success/non-general metrics are highly dependent on generating resources without raising tuition. We will sense the progress, but this is a long-term investment.

• Many parts are experimental – we will shed failures and scale successes.

• Consider other strategic forcing functions (water, energy, food, digital, human health) in same context.