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INNOVATION GRANTS
• Twenty one-year research grants
• Interdisciplinary topics meshing with PSU priorities
• Research gems nearing completion

FRONTIER FACULTY LINES
• Six interdisciplinary hires on frontier topics
• At the intersection of societal challenges, faculty interests, and existing/short term research infrastructure
• To create further synergies between departments, centers, institutes, Penn State colleges, and other universities

DISTINGUISHED TEACHING FELLOWSHIPS
• Ten fellowships for senior PhD students
• Teach one regular course under professorial supervision
• Engage with award-winning educators
Initiatives

EXCELLENCE GRADUATE FELLOWSHIPS
- Twenty five full 3-year offers
- Targeted at top incoming graduate NSF fellowship-caliber
- Accompanying specific academic and social program

INSTRUCTIONAL AND RESEARCH EQUIPMENT GRANTS
- Fifteen grants for instruction and research
- Innovative content on both education and investigation

RESEARCH EXPERIENCES FOR UNDERGRADUATES
- More than 50 eight-week embedded opportunities
- Attendance in research methods seminars
- Participation in professional conferences
ONE-YEAR COURSE-BASED MASTERS
- Ten grants for complete proposals
- Non-thesis residential MS degrees
- August-to-August format

GLOBAL PROGRAM DEVELOPMENT
- Ten grants for complete proposals
- Non-thesis residential MS degrees
- August-to-August format

COMMERCIALIZATION GRANTS
- Four funded and second round under review
- Research outcomes that are amenable to commercialization
- Linked to industry requirements
### Current/New Initiatives

<table>
<thead>
<tr>
<th>Program</th>
<th>Amount</th>
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<tr>
<td>Innovation Grants</td>
<td>12/$1M</td>
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<tr>
<td>Excellence Graduate Fellowships</td>
<td>25/$1.45M</td>
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<td>One-year Course-based Masters</td>
<td>12/$600k</td>
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<td>Distinguished Teaching Fellowships</td>
<td>10/$195k</td>
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<tr>
<td>Research Experiences For Undergraduates</td>
<td>75/$500k</td>
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<td>Frontier Faculty Lines</td>
<td>6/$6M</td>
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<tr>
<td>Instructional and Research Equipment Grants</td>
<td>10/$1.5M</td>
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<td>Global Program Development</td>
<td>5/$100k</td>
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<td>ENGIN Grants</td>
<td>4/$300k</td>
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<td>PSU-wide Research Experience for Undergraduate</td>
<td>200/$1.2M</td>
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<td>Business Experience for Undergraduates and Grads</td>
<td>15/$100k</td>
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<tr>
<td>Laboratory Renovation</td>
<td>5/$500k</td>
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### Administration

**HR**
- Annual review process
- Job responsibilities worksheet

**IT**
- Streamlining two groups into one
- Expanding the definition of Engineering IT
- Coordination of College and Departments IT

**Finance**
- Functional budget
- Five-year budget projection
- Cash flow analysis
- Carry-forward management
- Activity budget allocations

### Development
- Objectives derived from College priorities
- Expansion of Major Gift Officers
- Strengthening of corporate gift effort

### Pre- and Post-Award Management
- Strengthening of the team
- Creation of symmetric structure
- Major proposals coordinator

### Communications
- Expanded from one to ten
- New templates for slides
- Brochures
- Major advertising campaign
- Total redesign of all web sites
- New and consistent branding
Communications Firsts

Hiring 12 biomedical engineering professors
- Imaging, Devices
- Nano, Regenerative Medicines
- Tissue Engineering
- Computational Bioengineering

Hiring 42 NEW PROFESSORS
in new positions over 3 years in emerging areas responding to global challenges
to expand faculty by 20%

25% EXPANSION of Faculty in Mechanical and Nuclear Engineering
in cyberphysical systems, energy, biomechanics, manufacturing

Communications Team

e-newsletter

Ad Campaign

March 2015
Czyzyk Receives National Global Outreach Award from ASABE
Researchers Propose New Way to Remove Iron from Contaminated Water
Sophomores Max Rubin Hopes to Advance Technology of Prosthetic Limbs, Wins for Track and Field Championships
Rashidkova Weighs in on Social Network Analysis Privacy
Penn State Selected for 2016 Collegiate Wind Competition

Biological Engineering Senior to Receive ASABE Pharo of Alexandria Global Learning Award
Czyzyk recognized for leadership, engaged scholarship, and humanitarian efforts
Kelsey Czyzyk, a senior in biological engineering, has been selected to receive the American Society of Agricultural and Biological Engineers 2015 Pharo of Alexandria Global Learning Award.
The award was established in 2010 to recognize a junior or senior undergraduate or graduate student who has excelled and demonstrated leadership on the local, national, or international levels as shown by their activities and offices held at each level.

Research Team Working to Combat Contamination in PA’s Streams and Rivers

IPAC
ANNUAL MEETING 2015
Communications Firsts

Marketing Campaign

College/Departments Strategy
Communications Firsts

Professional videos
Strategic Goals

- Enhanced educational experience
- Interdisciplinary majors and minors
- Non-thesis Master
- Strengthened Ph.D. programs
- Improve student environments
- Increased funded projects
- Research collaboration
- Research partnerships
- Improved labs
- Faculty contributions to policy
- Engaged service
- Enhanced business operations
- Alignment of College priorities
- Financial system improvements
- Strengthened institutional effectiveness
Education

**Strategic Goal 1:**
Enhance the Penn State deep, fundamental undergraduate educational experience with leadership and entrepreneurial training; global awareness; cultural sensitivity; presentation and communication skills; intense project-based and service learning; and more online degree programs.

**Enabling Actions**
1a. Leadership Minor
1b. Global Engineering Certificate and Minor
1c. Project-based Curricula
1d. Service Learning Projects
1e. Online Degrees
Development Thrusts

- Innovation in Undergrad Education
- The Global Engineer
- Pioneers of Economic Development
- Professor of the Future
- Inclusive Penn State
- Frontiers of Discovery

Penn State College of Engineering

STRATEGY

DEVELOPMENT

COMMUNICATIONS

DIVERSITY
STRATEGY: Diversity

- Develop a shared and inclusive understanding of diversity
- Create a welcoming campus climate
- Recruit and retain a diverse student body
- Recruit and retain a diverse workforce
- Develop a curriculum that fosters cultural competencies
- Inclusive University leadership and management
Investment in Inclusive Penn State 2015-2019:

$900,000
Five-year Plan for Global Preeminence

12

FACULTY
5-year plan

STAFF
5-year plan

SPACE
5-year plan

FINANCE
5-year plan
MS/MEng Programs

Aerospace Engineering
Chemical Engineering
Civil Engineering
Computer Science and Engineering
Electrical Engineering
Engineering Design
Engineering Mechanics
Environmental Engineering
Industrial Engineering

Coming Soon: Acoustics, Leadership and Intrapreneurship, Engineering at the Nano-scale, Facilities Engineering and Management, Biomedical Engineering, Structural Integrity
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<th>Big Ten+ Engineering College</th>
<th>MS One Year</th>
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<th>MEng</th>
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The Highlights

- ChemE/Bio building
- School of EECS
- 20% expansion of the faculty
Successful initiatives
14 MS/MEng courses
18 ABET accredited programs
Planned Strengthening of Acoustics

Expansion of Communications

Addition of Associate Dean for Research and Innovation

Reorganization of Finance
Faculty lines in MNE
Faculty lines in SEDTAPP
Frontier lines
12Faculty lines in BME
HR Reorganization

Planned IT Reorganization

Strategy and Implementation

Strategy-steered Development
Over the Horizon

IN EDUCATION

- Interdisciplinary problem-based majors/minors
- Intercollegiate MS/MEng degrees
- Service learning
- Quantitative student satisfaction/feedback
Over the Horizon

IN RESEARCH

- Launching research thrusts
- Industry-CoE research partnerships
- Increase in funded centers
- Intellectual Property support
- Fund large equipment purchases
Over the Horizon

IN SERVICE

- Membership in policy-forming committees
- Reward system for distinguished technical service
- Transnational committees
Over the Horizon

IN GOVERNANCE

- Management and Admin Manual
- Financial tracking and projections
- NTT career progression systems
- Alignment of personal and institutional aspirations
- Departmental and college external reviews