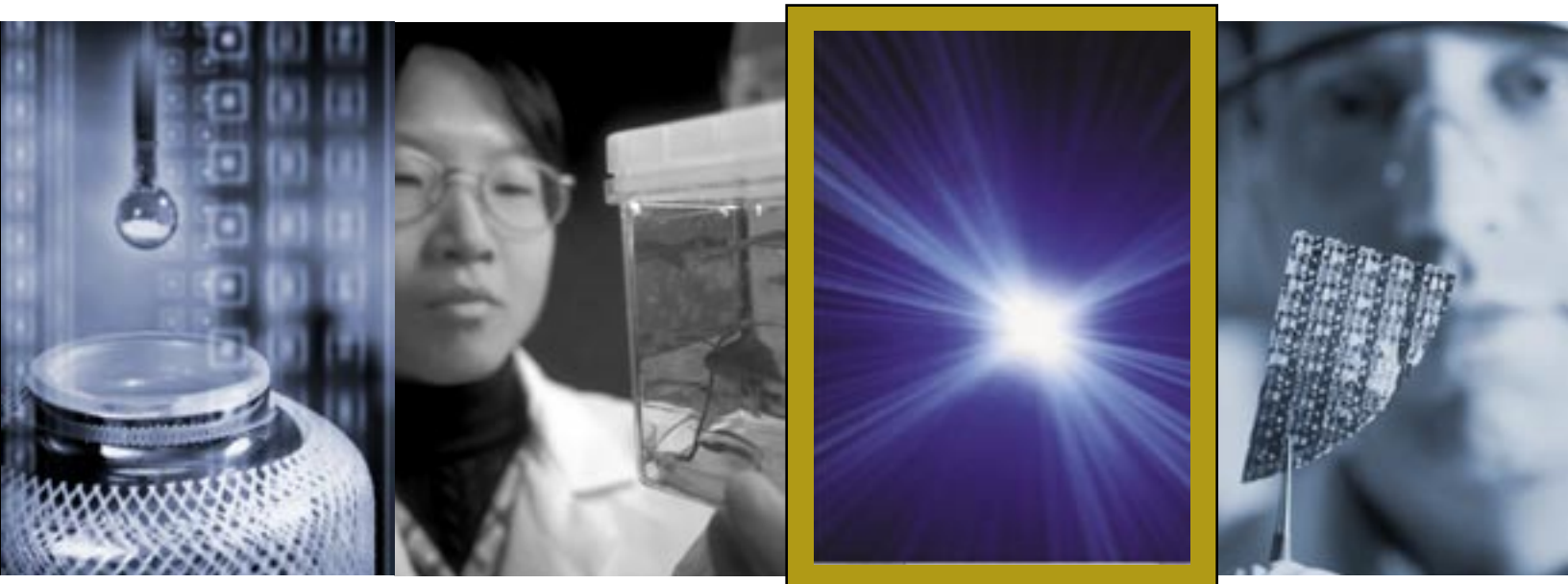


# The Purdue Engineering Strategic Plan

2002 - 2007



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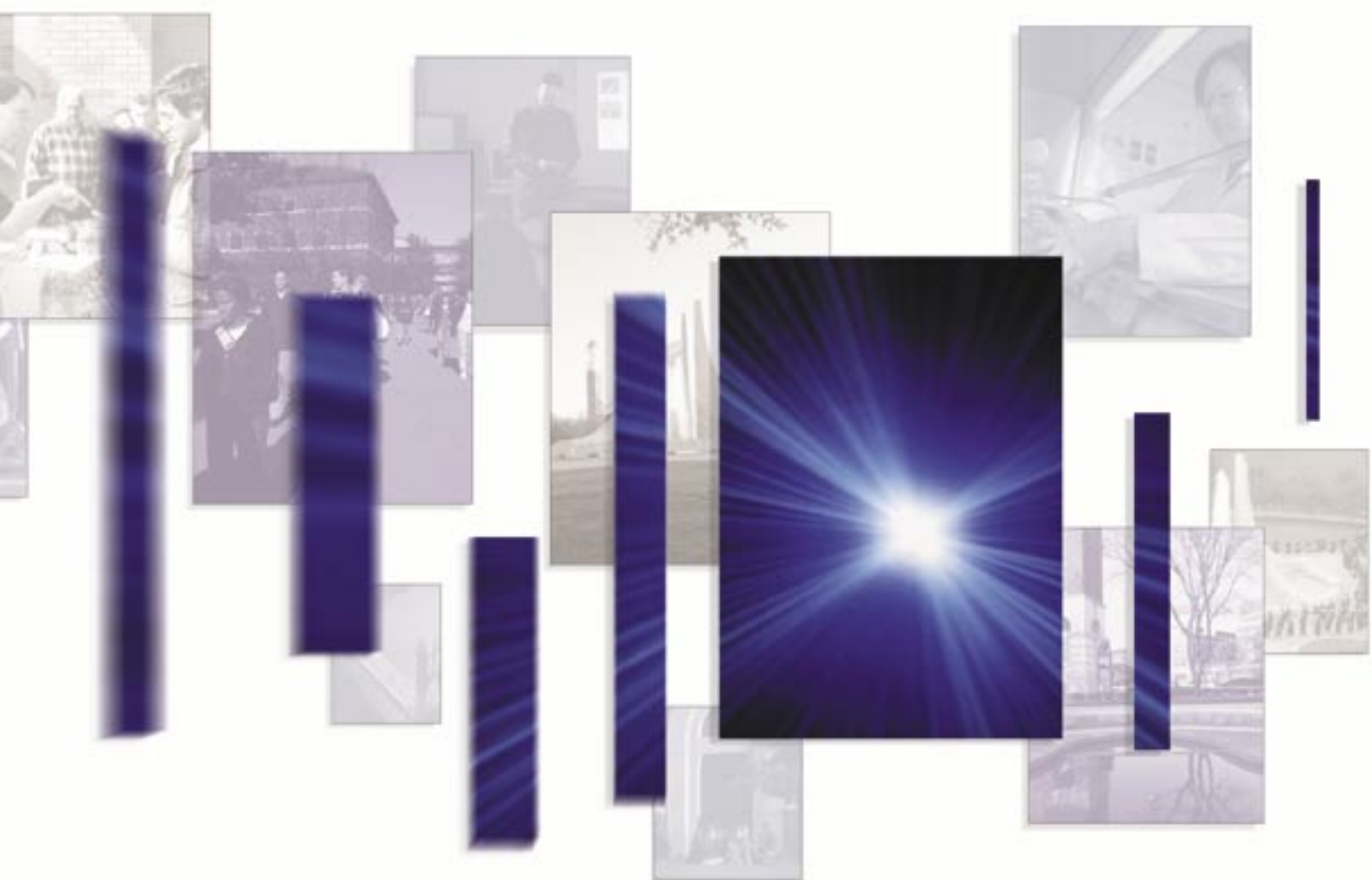
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# Preeminence

“Imagination is the beginning of creation. You imagine what you desire, you will what you imagine and at last you create what you will.”  
—George Bernard Shaw

## The Endless Frontier

In 1945, Dr. Vannevar Bush, the Director of the Office of Scientific Research and Development under President Franklin Roosevelt, issued a report—*Science: The Endless Frontier*—that transformed scientific research by recognizing the unique role that universities serve in creating new knowledge and educating our technical experts. His words still resonate.

“ . . . without scientific progress no amount of achievement in other directions can insure our health, prosperity, and security as a nation in the modern world.

“ . . . There must be a stream of new scientific knowledge to turn the wheels of private and public enterprise. There must be plenty of men and women trained in science and technology for upon them depend both the creation of new knowledge and its application to practical purposes. . . .

“ . . . [Publicly and privately supported colleges and universities] are charged with the responsibility of conserving the knowledge accumulated by the past, imparting that knowledge to students, and contributing new knowledge of all kinds.”

Vannevar Bush  
*Science: The Endless Frontier*  
(U.S. Government Printing Office, 1945)



## Focus on the Future

*The demand for us to contribute to the economic prosperity and social welfare of our society is a growing obligation. The partnership among academe, government, and industry is even more critical as the disciplinary boundaries blur and technology erases geographic barriers. Educating talented men and women is increasingly complex as knowledge and technology expand at unprecedented speed.*

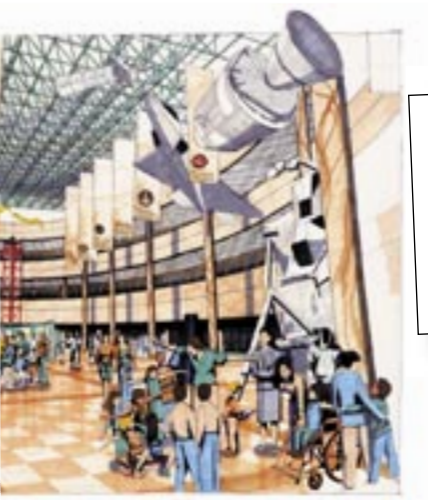
*Purdue is uniquely positioned to redefine engineering higher education in the 21<sup>st</sup> century. Rooted in acknowledged excellence for our educational programs and disciplinary expertise, we are striding confidently into new areas of investigation, exploring new methods of inspiring learning, and reaching out to our local, national, and global communities. We are investing in our people and facilities at a time when others are forced to tighten their fiscal belts.*

*Given these strengths and guided by insights from our stakeholders, we have crafted a strategy that will lead us from excellence to the paramount distinction of preeminence. We trust it will captivate your interest and motivate you to help us create our envisioned future.*

*We look forward to working in partnership with you.*

*With warm regards,*

*The Engineering Leadership Team*



**PURDUE**  
UNIVERSITY



# Legacy of Excellence

“Excellence is an art won by training and habituation. We are what we repeatedly do. Excellence, then, is not an act but a habit.”

—Aristotle

**Challenge and Opportunity** *Our five-year strategic plan sets forth the path we will follow on our journey from excellence to preeminence.*

It incorporates the best ideas from our faculty, refined with input from our key constituents: students and parents; staff; alumni and friends; and academic, corporate, and government partners. The elements of this plan express our commitment to educate engineers, discover new knowledge, and share what we learn to improve our campus and local community, Indiana, the nation, and the world.

Established in 1869 and named for benefactor John Purdue, Purdue University was founded in response to the Morrill Act of 1862. This bold new vision for American higher education promoted teaching the agricultural, military, and mechanical arts. Purdue Engineering, a fundamental component of Indiana’s land-grant university, is a core strength in the University’s portfolio.

Renowned as a global resource for engineering talent and discoveries that improve the human condition, we contribute across the spectrum of basic and applied knowledge, from the theoretical to the practical. Our graduates and our faculty are inventors, explorers, entrepreneurs, and leaders. They shape our military and our social services. They influence education, commerce, policy, and governance. In short, they have changed the world; they make a difference wherever they live and work; and their future potential inspires awe.

Today the bold vision of Purdue’s founding is challenged as globalization, engineering advancements, and changing workforce demographics redefine our society. This is a time of unprecedented opportunity to transform the institutions that educate engineers, grow leaders, and create new knowledge.

We, the Engineering Leadership Team and all who have already committed to moving this vision forward, accept the challenge and invite you to be our partner.



**Leadership Values** *Preeminence demands leadership, and leadership demands the best from our most important assets—our people.*

We seek out and celebrate those who embrace high ethical standards, expect excellence from themselves and others, value cultural and intellectual diversity, and cultivate teamwork. We believe that a community that embodies these ideals will evolve from excellence to preeminence through its drive to explore, learn, enable, grow, improve, create, nurture, and achieve.

**Mission** *We educate tomorrow's engineering leaders and innovators, create new knowledge, provide a nurturing environment for teamwork and lifelong learning, and impact the economic prosperity of our state, nation, and world through: Learning, Discovery, and Engagement.*

**Learning**

that motivates individuals to achieve, lead, mentor others, give back to society, and grow in wisdom and intellect throughout their lives.

**Discovery**

that expands the realm of knowledge, achieves innovative engineering solutions, and defines new frontiers for scientific investigation across engineering and related disciplines.

**Engagement**

that produces rich interactions with our state, community, and alumni; shares discovered knowledge; and applies engineered solutions to technical and social problems in the nation and across the globe.



# Strategy

*“The best way to predict the future is to invent it.”*

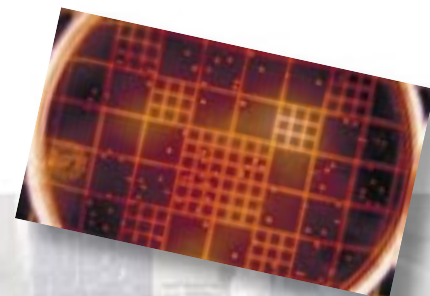
—Alan Kay

**Vision** *We will grow from excellence to preeminence to be the leader in engineering higher education;*

**the engineering program of choice for students and academicians; the premier source of engineering talent for the academic, technical, and business communities; and the preferred partner for creating new opportunities and areas of investigation.**

**Goals** *To lead the world in engineering higher education, we will fulfill our mission by accomplishing these goals:*

- Graduate outstanding engineering professionals who will grow into leadership positions and make a difference where they work and live.
- Redefine the boundaries of engineering research, education, and outreach nationally and globally.
- Contribute to the educational and economic improvement of Indiana, the nation, and the world.
- Instill a lifelong thirst for learning and provide venues for satisfying this need.
- Cultivate an environment that fuels curiosity and creativity where people and ideas thrive and different cultures and experiences are valued.
- Create an exceptional physical infrastructure for learning, discovery, and engagement.
- Acquire and manage sufficient resources to empower growth, innovation, and flexibility.







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## Overarching Themes

### People: Student, Faculty, Staff

1. Attract and retain diverse and superbly qualified people, mentor them for success, value their contributions, and reward excellence and teamwork.
2. Offer faculty, students, and staff meaningful opportunities to grow professionally.
3. Cultivate, recognize, and reward leaders, effective collaborators, and change agents.

### Programs: Learning, Discovery, Engagement

1. Develop unique learning experiences and research capabilities which address state, national, and global needs and set the trends in engineering higher education for the next 30 years.
2. Create mechanisms for the engineering community to develop global, cultural, and civic literacy and leadership.
3. Design programs to convert discovered technologies into economic potential and engineering creativity into business innovation.
4. Engage our alumni, corporate and government partners, and other key stakeholders in mutually beneficial relationships which serve their needs for lifelong learning, new technologies, and technical leadership while advancing the goals of the institution.

### Environment: Climate, Facilities

1. Transform the engineering community to embrace diverse ideas, people, and experiences.
2. Respond to individual and collective needs for personal and professional growth and success.
3. Integrate state-of-the-art technology into new or re-created premier facilities that uniquely enhance the engineering environment for learning, discovery, and engagement.

# Key Actions

*“To accomplish great things, we must dream as well as act.”*

—Anatole France

## People: Students, Faculty, Staff

### Students

*We will recruit the highest-quality undergraduate student body by*

collaborating with the Office of Admissions, the Division of Financial Aid, and the Engineering Alumni Association to effectively identify and recruit a diverse and global population of top high school prospects, such as National Merit scholars, and to offer competitive scholarships.

*We will recruit the highest-quality graduate students by*

identifying high-potential, diverse talent from top undergraduate engineering programs and key institutional partners; attracting students who qualify for and receive prestigious fellowships, such as National Science Foundation fellowships; developing improved strategies for attracting the best international and domestic students; and offering competitive fellowships and assistantships.

*We will expand and improve the PhD program by*

reducing time to degree completion, attracting potential PhD candidates earlier in the educational process, enhancing faculty mentoring, and increasing PhD enrollment.

*We will retain students by*

providing active advising, faculty and peer mentoring, learning communities, rich research experiences, opportunities for engagement, and professional role models.

### Faculty and Staff

*We will support the learning environment and strengthen core competencies by*

efficiently refilling core positions with outstanding and diverse faculty, developing appropriate career paths for research professionals, and selecting staff with critical skills and expertise to support the engineering enterprise.

*We will establish leadership in high-impact interdisciplinary signature areas by*

implementing a “cluster hire” strategy for 75 new faculty that jump-starts and builds strong thrust area research groups and by actively seeking opportunities for joint or courtesy appointments within and outside engineering. Our signature areas are:

- |  |  |
|--|--|
| (1) Advanced Materials and Manufacturing                     | (5) Nanotechnologies and Nanophotonics |
| (2) Global Sustainable Systems                               | (6) Renewable Energy and Power Systems |
| (3) Information, Communications, and Perception Technologies | (7) System of Systems                  |
| (4) Intelligent Infrastructure Systems                       | (8) Tissue and Cellular Engineering    |



*We will recruit the highest-quality faculty and staff by*

enhancing our procedures for identifying qualified, diverse talent; compensating at rates competitive to benchmark averages; widely promoting our “cluster hire” strategy; and providing competitive start-up funding to prospective faculty and research professionals.

*We will retain our faculty and staff by*

providing mentoring and career support, enabling them to “retool” to add new capabilities, providing training and support on advanced technologies, rewarding innovation, offering leadership appointments, and improving processes for evaluating performance and awarding promotions.

*We will heighten external recognition and demand for our faculty, staff, and research professionals by*

promoting their achievements; creating a network of advocates who will nominate them to serve on national and international priority-defining leadership teams and for appointments of high distinction; and providing an environment that enables them to publish in trend-setting journals, write field-defining textbooks, participate in and organize leading conferences, patent inventions, license novel technologies, and start successful companies.

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## **Metrics for People**

### **Students**

**Average scores on standardized tests**

**Number of National Merit Scholars and NSF Fellows**

**Enrollment demographics**

**Average graduate assistant stipend and fellowship award**

**Merit scholarship awards per student by enrollment demographics**

**Growth in endowed scholarships and fellowships**

**Average time to PhD completion**

**Ratio of graduating PhDs to faculty**

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### **Faculty and Staff**

**Student-to-faculty and staff-to-faculty ratios**

**Demographics of faculty and staff**

**Distribution of new “cluster hire” tenure-track faculty by signature area and demographics**

**Average faculty salaries by rank as compared to the Big 10+**

**Growth in endowed professorships**

**Faculty and staff awards, distinctions, and major accomplishments**

## **Programs: Learning, Discovery, Engagement**

### **Learning**

*We will offer a unique and memorable educational experience by*

creating innovative curricula that integrate new knowledge and respond to changing needs; pioneering advanced teaching and learning methodologies; developing programs emphasizing engineering education; seeding educational innovation in the signature areas; and partnering with other academic units, institutions, and companies to develop programs that emphasize entrepreneurship, ethics, and leadership.

*We will provide undergraduate students flexibility by*

offering joint and interdisciplinary degree programs; expanding the Honors Program in collaboration with the engineering disciplines and the University Honors Program; creating an undergraduate Biomedical Sciences and Engineering program; and redefining the role of Interdisciplinary Engineering.

*We will increase flexibility in the graduate program by*

supporting traditional and interdisciplinary educational programs, promoting cross-discipline advising, developing professional engineering degree options and a distinct MS non-thesis degree path, cultivating opportunities for faculty positions at prestigious academic institutions, and preparing PhD graduates to excel in their careers.

*We will instill in students a sense of responsibility to their profession, their communities, and society by*

expanding the campus and national Engineering Projects in Community Service (EPICS) programs; facilitating active involvement in professional student organizations and participation in national conferences; encouraging co-curricular, experiential learning through curriculum integration of student-sponsored outreach activities and engineering competitions; and preparing students for future certification as professional engineers.

*We will develop a global perspective and emphasize professional practice by*

expanding international study and work opportunities, improving access to cultural and language studies, expanding the scope of and increasing the options for industrial cooperative and internship experiences, and pioneering undergraduate research fellowships and internships.

*We will promote and support lifelong learning by*

expanding the scope of the Continuing Engineering Education program through increased offerings, domestic and international sites, and participation in distance learning and other traditional programs (degree, non-degree, short course, topical conferences, etc.); enhancing collaborations with the engineering disciplines and outreach programs, other academic units, and the Division of Conferences; and integrating with other learning, discovery, and engagement activities.

## Discovery

*We will impact the national and global science and technology agenda by*

**aggressively pursuing new intellectual directions and opportunities for innovative, high-impact research centers and programs of excellence; creating faculty sabbatical and exchange opportunities, as well as faculty and student research internships and fellowships with top research groups in areas of strategic interest; and cultivating joint proposals with key partners.**

*We will increase interdisciplinary research by*

**leveraging our disciplinary and signature area strengths to grow new thrust areas, actively cultivating collaborations between faculty colleagues from different engineering disciplines, seeking out technical expertise within other academic areas at Purdue, and leveraging intellectual and infrastructural resources provided by large-scale research facilities such as those in Purdue's growing multidisciplinary research complex, Discovery Park.**

*We will significantly expand the research enterprise by*

**developing strategic relationships with leading U.S. and global institutions, federal and state governments, and key corporate and foundation partners; investing in strategic growth areas where there is broad disciplinary and interdisciplinary strength; and rewarding faculty initiative and innovation.**

*We will support the creative discovery process by*

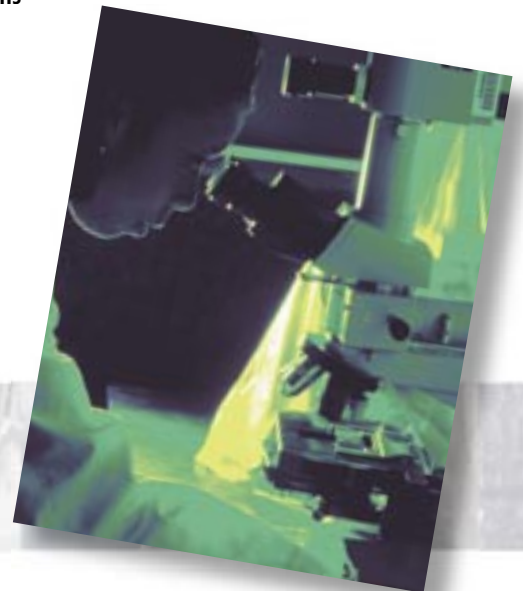
**providing seed funding for interesting new research concepts; utilizing the Engineering Computer Network and Information Technology at Purdue to facilitate high-quality, advanced computing; assisting faculty in assembling strong intellectual property portfolios; and acquiring entrepreneurial knowledge and ability.**

*We will foster an environment that is renowned for encouraging leadership in research and that rewards all discovery activities by*

**eliminating institutional barriers, developing responsive administrative systems and processes, and identifying opportunities to draw on our strengths and leverage resources.**

*We will establish unparalleled expertise and unique capabilities by*

**encouraging innovative ideas and developments by our faculty, participating energetically in campus-level initiatives, utilizing the signature-area-based "cluster hire" process to build robust new research groups, and leveraging opportunities presented by government and private funding agencies.**





## Engagement

*We will heighten worldwide awareness, recognition, and understanding of Purdue Engineering by*

increasing outreach to pre-college students; engaging K-12 teachers in professional development programs; orchestrating technical conferences and symposia around the signature area topics; and intensifying our efforts to publicize the achievements of our faculty, staff, students, and alumni.

*We will contribute to the economic well-being of the state by*

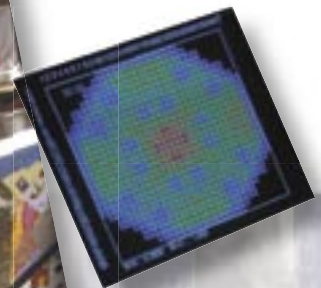
encouraging faculty and students to commercialize new technologies in collaboration with the Burton Morgan Entrepreneurship Center, the Office of Technology Transfer, and the Purdue Research Park; providing technical expertise through the Technical Assistance Program; and partnering on 21<sup>st</sup> Century Fund projects.

*We will cultivate mutually beneficial relationships by*

partnering with alumni, corporations, foundations, and institutions to fulfill their needs for employees, technical education, robust engineering solutions, and competitive technologies, while also advancing our goals for identifying talent, cultivating diverse populations, expanding international experiences, enriching student learning, leveraging resources, and defining new fields of inquiry and education.

*We will support all elements of the strategic plan by*

completing the Engineering portion of the Campaign for Purdue, developing unique opportunities to leverage the existing resources of the University, and recognizing our partners and philanthropists.





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## Metrics for Programs

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### Learning

Participation in experiential learning, professional practice, enrichment, service, international, and leadership programs

Number of joint and interdisciplinary programs and degree offerings

Job placement rate by degree and proportion of graduating PhDs placed in academic positions

Growth in distance learning, lifelong learning, and technology-enhanced learning programs

Student awards and distinctions

National reputation rankings for the engineering disciplines

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### Discovery

Growth in research proposal activity, awards, and expenditures

Research proposal activity, awards, and expenditures per faculty

Number and funding level of sponsored technical centers, centers of excellence, and major interdisciplinary research centers

Level of involvement in Discovery Park and other University-wide research initiatives

Number of faculty serving on national policy councils, as officers in professional societies, or as editors of leading journals

Number of patents and intellectual property licenses issued

National research impact rankings

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### Engagement

Participation in Engineering-sponsored technical, pre-college, and alumni outreach activities

Number of placements of Engineering news in state, national, and international media

Number and scope of strategic partnerships

Number and impact of new commercial ventures initiated by faculty, staff, and students

Participation of alumni worldwide as donors

Growth in giving to Purdue Engineering and the Engineering endowment

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## Environment: Climate, Facilities

### Climate

*We will provide a supportive, welcoming environment for our students, faculty, and staff that values cultural and gender diversity, nurtures and respects all members of our community, and inspires and empowers each individual to achieve his or her full potential by*

**involving our engineering community in diversity activities, with leadership from our Diversity Action Committee; developing institutional partnerships; designing unique initiatives, such as the diversity leadership workshops, with help from corporate partners and alumni champions; and recognizing faculty, staff, and students who significantly contribute to creating a positive environment.**

*We will foster balance between the demands of the job and the family by*

**understanding quality-of-life issues, such as child care and dual careers; developing responsive policies and practices to address these issues; and providing the necessary systems of support.**

*We will evaluate climate and quality of life by*

**creating safe feedback loops to gather information about issues, monitor program and practice effectiveness, and suggest improvements.**

### Facilities

*We will construct a flexible, technologically advanced physical environment by*

1. completing early-phase projects of the Master Facilities Plan:
  - adding wings to the Chemical and Mechanical Engineering Buildings, and
  - building the Birck Nanotechnology Center, the Bowen Laboratory for Large-Scale Civil Engineering Research, and the Millennium Engineering and Biomedical Sciences and Engineering Buildings;
2. refining and detailing plans for next-phase projects:
  - Industrial Engineering, Electrical and Computer Engineering, and Nuclear Engineering expansions; and
  - improvements to the Herrick and Zucrow Laboratories; and
3. constructing a student projects building and renovating existing buildings.

*We will alleviate short-term laboratory and office shortages and provide surge space for new centers and prototype learning environments by*  
**acquiring and modifying temporary space.**

*We will create unique capabilities by*  
**integrating the latest technology into our classrooms, collaboration rooms, instructional and research laboratories, and distance learning facilities and by acquiring advanced instrumentation, leading-edge technologies, and high-tech multimedia tools.**

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## **Metrics for Environment**

### **Climate**

- Proportion of faculty, staff, and students from underrepresented and international groups**
- Retention rates of faculty, staff, and students**
- Participation of faculty, staff, and students in diversity, leadership, and development programs**
- Satisfaction with campus and college climate**

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### **Facilities**

- Assignable Square Feet (ASF) by discipline and function**
- Number and type of unique equipment-based or facilities-based capabilities**
- Elapsed time from need identification to acquisition of new or interim space**
- Ratio of space available to projected need**



# Measuring Progress

“The toughest thing about success is that you’ve got to keep on being a success.”

—Irving Berlin

## Assessment and Benchmarking

### Data and Reporting

*We will report annually by*

gathering data on the metrics and benchmark measures, identifying critical concerns affecting policy definition and best practices, and measuring progress on qualitative issues, such as the following:

- Stakeholders’ perceptions of quality and performance of our curricula, research, services, programs, and graduates.
- Job satisfaction, quality of life, environment quality, and climate related to diversity and culture.
- Policies and practices affecting faculty and staff hiring, achievement, professional development, and advancement.

*We will benchmark by*

comparing ourselves to seven institutions selected based on the following characteristics: Carnegie Institute Research I classification, comprehensive academic programs for both undergraduate and graduate education, multiple disciplinary and interdisciplinary offerings, scope and funding level of research program, diversity programs and experience, and reputation of the engineering enterprise:

- Georgia Institute of Technology
- Massachusetts Institute of Technology
- Stanford University
- University of California-Berkeley
- University of Illinois-Urbana/Champaign
- University of Michigan
- University of Texas-Austin

### Benchmark Measures

**Standardized test scores**

**Number of National Merit Scholars, NSF Fellows, and NAE members**

**Average scholarship or fellowship per student**

**Annual PhDs granted per faculty and total time to PhD completion**

**Student-to-faculty ratio**

**Retention of faculty, staff, and students**

**Research expenditures overall and per faculty member**

**License agreements and patents**

**National rankings**

**Private giving and endowment value**



# Resources

*“The greatest achievement of the human spirit is to live up to one’s opportunities and make the most of one’s resources.”*  
*—Marquis de Vauvenargues*

**Funding the Plan** Revenues to fund the expenditure gap between current activities and the actions identified in the strategic plan fall into five broad categories as outlined below.

## Advancement

Private fundraising will help support the goals of this plan through the University’s \$1.3 billion seven-year (2000-07) Campaign for Purdue. While the Engineering portion totals \$482 million over the seven-year capital campaign period, the Engineering campaign goals for the five-year strategic plan period total \$330 million, as detailed below.

### Engineering goals for Strategic Plan period 2002-07

Facilities and Equipment	\$174 million
Student Support	45 million
Faculty Support	63 million
Programs	23 million
Unrestricted	25 million

## Sponsored Programs

We will collaborate with the engineering faculty, the Office of Research, and Discovery Park so that research awards to engineering faculty or involving engineering faculty collaborators increase at the desired rate. The anticipated increase in expenditures will finance the increased strategic research activities and centers, as well as help support additional research professionals, improve graduate research assistant stipends, increase fellowship support, leverage equipment purchases and faculty start-up funding, and enhance programs for graduate student and faculty diversity.

## Reallocation

Engineering resources will be reallocated annually to support priorities of the plan, such as aligning compensation levels to our benchmark institutions for new and existing faculty, providing start-up to new faculty, funding professional development opportunities for faculty and staff, and providing career advancement for staff.



## State Assistance

Additional support will be requested from the State of Indiana through the Office of Government Relations to assist with new, high-impact academic programs, new construction, and major renovations, including the following projects:

### Bonding authority for new construction

Millennium & ME Planning Grants ('01-'03 biennium—approved)	\$ 1.9 million
Millennium Engineering Building ('03-'05 biennium—approved)	36.0 million
Biomedical Sciences and Engineering Building ('03-'05 biennium—approved)	13.0 million
Mechanical Engineering addition ('05-'07 biennium—anticipated)	13.0 million

### Annual increase for academic operations

Biomedical Sciences and Engineering Program ('03-'05 biennium—approved)	\$ 5.0 million
\$2.5 million new and recurring budget funds beginning in 2003	
\$2.5 million additional new and recurring budget funds beginning in 2004	

## University Leverage

We will collaborate with the University to leverage external resources through the Office of Research and Discovery Park for cost sharing on research grants, the Graduate School for fellowship support, the Office of the Treasurer for R&R (facilities renovation and restoration) support, and the Purdue Research Foundation for bridging funds to smooth spending flows for privately funded construction.

In addition, we will work with the Provost to increase the General Funds provided to the Engineering budget to support salaries for the 75 new strategic faculty positions; improve the student-to-faculty ratio; support undergraduate research and other new initiatives; and provide technical support, computing, and advanced equipment and instrumentation for instructional laboratories.



## The Engineering Leadership Team

We set and champion engineering-wide priorities; determine strategic plan performance targets; evaluate and, as appropriate, suggest changes to internal policies and practices; assess the external environment for needs, threats, and opportunities; and provide leadership to our key internal and external stakeholders.

The Engineering Leadership Team comprises the dean as team leader and the heads of each of the engineering disciplines, the dean's cabinet members, and the faculty chairs of the dean's Faculty Advisory Committee and the Junior Faculty Council.

### Current Membership

<b>Linda P. B. Katehi</b>	Leadership Team Chair, The John A. Edwardson Dean of Engineering and Professor of Electrical & Computer Engineering
<b>Vincent F. Bralts</b>	Head and Professor of Agricultural & Biological Engineering
<b>Dennis Engi</b>	Head and Professor of Industrial Engineering
<b>Thomas N. Farris</b>	Head and Professor of Aeronautics & Astronautics
<b>Donald R. Fry</b>	Director of Engineering Advancement and Major Gifts
<b>Jay Gore</b>	Associate Dean for Research & Entrepreneurship and Reilly Professor in Combustion Engineering, Director of IIES
<b>Patricia A. Grams</b>	Director, Engineering Financial Affairs
<b>Kamyar Haghighi</b>	Head of Freshman Engineering and Professor of Agricultural & Biological Engineering
<b>Daniel W. Halpin</b>	Head of Construction Engineering and Management and Professor of Civil Engineering
<b>Michael T. Harris</b>	Chair of the Junior Faculty Council and Associate Professor of Chemical Engineering
<b>E. Daniel Hirleman, Jr.</b>	William E. and Florence E. Perry Head of Mechanical Engineering and Professor of Mechanical Engineering
<b>Larry F. Huggins</b>	Associate Dean for Resource Planning & Management and Professor of Agricultural & Biological Engineering
<b>Leah H. Jamieson</b>	Associate Dean for Undergraduate Education and Ransburg Professor of Electrical & Computer Engineering, Director of EPICS
<b>Alexander H. King</b>	Head and Professor of Materials Engineering
<b>Klod Kokini</b>	Associate Dean for Academic Affairs and Professor of Mechanical Engineering
<b>Fred L. Mannering</b>	Head and Professor of Civil Engineering
<b>Edgar J. Martinez</b>	Assistant Dean for Research and Entrepreneurship
<b>Carolyn A. Percifield</b>	Director of Engineering Strategic Planning & Assessment
<b>P. Suresh C. Rao</b>	Associate Dean for Graduate Education & Interdisciplinary Programs and Lee A. Rieth Distinguished Professor in Environmental Engineering
<b>Rwitti Roy</b>	Director of Engineering Marketing & Communications
<b>Kumares C. Sinha</b>	Chair of the Faculty Advisory Committee and Olson Distinguished Professor of Civil Engineering
<b>Mark J. T. Smith</b>	Head of Electrical & Computer Engineering and Michael J. and Katherine R. Birck Professor of Electrical & Computer Engineering
<b>Lefteri Tsoukalas</b>	Head and Professor of Nuclear Engineering
<b>Arvind Varma</b>	Head of Chemical Engineering and R. Games Slayter Distinguished Professor of Chemical Engineering
<b>Phillip C. Wankat</b>	Head of Interdisciplinary Engineering and Clifton L. Lovell Distinguished Professor of Chemical Engineering
<b>Sharon K. Whitlock</b>	Assistant to the Dean of Engineering
<b>George R. Wodicka</b>	Head and Professor of Biomedical Engineering and Co-Director of Bindley Bioscience Engineering Center

# Transformation

“Never doubt that a small group of thoughtful committed people can change the world; indeed it’s the only thing that ever has.”

—Margaret Mead



**Unprecedented Potential** *Our plan will guide us through this transformation from excellence to preeminence.*

The Purdue Engineering strategic plan is aggressive and asserts a commitment to preeminence, principled actions, focused and sustained change, and tremendous individual effort by each of our faculty, staff, students, and alumni. It also demands productive collaborations with our campus administrative and academic colleagues; our academic, institutional, industrial, and government partners; our state legislators and citizenry; and our friends worldwide.

We will realize success, because our people will thrive creatively and technically. Their dreams and personal potential will be realized, and they will change the world through problem solving, leadership, and technology innovation.

We’ll know it, because our classrooms and labs will be melting pots of cultures, experiences, and ideas that create an environment for learning and discovery that sizzles with intellectual stimulation, knowledge creation, and mutual caring and respect.

The world will share our success, because our people will give back to our communities and reach out to our stakeholders, shaping their futures as they shape ours.

This is a time of unprecedented potential. Join us.







## **Purdue Engineering**

West Lafayette, Indiana 47907

[engineering.purdue.edu](http://engineering.purdue.edu)

[engineering.purdue.edu/StrategicPlan](http://engineering.purdue.edu/StrategicPlan)

**An Equal Access/Equal Opportunity University**