

# *New Synergies:*

- *Launching Tomorrow's Leaders*
- *Discovery With Delivery*
- *Meeting Global Challenges*

Purdue University

West Lafayette, Indiana

Strategic Plan: 2008 – 2014

June 2008

## PREAMBLE

***Purdue*** -- serving the people of Indiana, the nation, and the world through education, research and outreach -- prepares its students to assume roles as both citizens and leaders of an evolving world. Since its founding in 1869, Purdue University has advanced to one of the nation's leading public research universities, and expanded from the West Lafayette campus to a multi-campus system. Known as a university with one of the largest international student bodies and a diverse faculty, Purdue offers multicultural opportunities and experiences that encourage diversity and inclusiveness.

Committed to providing an excellent education through its wide-ranging programs, Purdue has empowered its students to become life-long learners, thereby encouraging them to strive for success wherever life may take them. In an ever-changing society, Purdue continues to provide its students with a comprehensive education giving them the tools they need to succeed in a global society.

In its quest to provide leadership in the area of engagement, Purdue is dedicated to linking the university's assets to entrepreneurship activities and societal economic growth. Innovation and collaboration at Purdue connect its students, faculty, and staff to a network of state, national, and global partners. These activities catalyze economic growth not only in Indiana, but in the nation and around the world.

Distinctive and distinguished research has brought an international reputation to Purdue. Reflecting the original mission of the university, Purdue's research accomplishments are rooted in the traditional specializations of agriculture, science and engineering with expansion into liberal arts, education, and other disciplines. Extensive discipline-based research that involves faculty and staff from every College or School has been a critical element for Purdue's success. More recently, Purdue has pooled its research strengths by creating interdisciplinary centers that address challenging societal problems.

Purdue made great strides with its last strategic plan (2001-2007). The research enterprise expanded, engagement activities were elevated, increasing Purdue's visibility and reputation, and student quality improved. These successes have transformed and infused the academic culture of the university with new energy and positioned Purdue for a new vision for successes as it moves forward.

Dr. France A. Córdova took the helm of Purdue University as the 11th president in the summer of 2007. Under her leadership, Purdue will build upon the successes of the past and pursue the aspiration of being among the top-ranked research universities in the world.

The development of the 2008-2014 Strategic Plan tapped the ideas and expertise of a wide range of faculty, staff, students, and other constituents and stakeholders to determine Purdue's direction going forward. It was a highly inclusive process that invited input and discussion at every level.

Faculty and staff led working groups that focused on eight key areas: student success and the student experience; large-scale research and its infrastructure; economic development; quality of life in the workplace; globalization; campus design; synergies among disciplines; and attracting students to careers in the STEM disciplines (science, technology, engineering, and mathematics). Throughout the process, synergistic interactions emerged among the working groups, and these synergies paved the way for developing this strategic plan.

Each working group sought input from the Indiana community through electronic media, held public forums, and conducted focus groups as well as interviews. Leaders from those working groups formed the nucleus of a Strategic Planning Steering Committee alongside others representing various constituents. The Strategic Planning Steering Committee provided direction for the development of the plan, and drafted the plan incorporating a wide array of input. President Córdova shared the draft of the plan widely for further input before finalizing it for review by the Board of Trustees. The Board of Trustees gave its approval on June 20, 2008.

What resulted from the broadly based participatory process to develop this strategic plan was truly remarkable. Throughout the years, Purdue has improved the quality of life within Indiana, the nation and the world through its high-quality programs -- and this transformative process must continue. Purdue students, faculty, and staff, face a present and a future in which the problems we attempt to solve and the subjects we investigate are global in scope and require knowledge, expertise, and commitment from all disciplines -- in a new culture of working together with cooperation and collaboration. Because the challenges we face require not only technical solutions from the sciences and engineering but also the social awareness and cultural competencies fostered in the liberal arts, the recognition, importance, and centrality of this **concept of connections**, i.e., “**synergy**”, quickly became the hallmark of the strategic plan.

With its historic land-grant tradition, Purdue is now at a crossroads aspiring to play increasingly pivotal roles in addressing ever-expanding global challenges, as it looks toward an exciting new future. With this plan, Purdue is positioning itself to meet the grand challenges of humanity, to grow and create opportunities for the global economy, and above all, to enhance student learning for success in tomorrow’s dynamic and diverse world. This, Purdue will undertake with great vigor by energizing synergistic research teams, learning environments, and responsive engagement initiatives in this new era. Purdue will continually raise its quality to better serve future generations by addressing tomorrow’s challenges.

Together with all its constituents, partners, and stakeholders, Purdue is now embarking on a new strategic plan: *New Synergies*.

*“... Developing a sound platform of knowledge to address such critical issues will require harnessing research of the highest quality, both in the natural and social sciences. And for this research to be effective, scientists will need to develop much deeper connections with the rest of society. ....”*

– Bruce Alberts, Editor-in-Chief of *Science* (April 2008)  
Former President of the U.S. National Academy of Sciences

## VALUES AND CULTURE

Purdue University has a tradition of ethical conduct spanning its history. We demonstrate our responsiveness to our constituencies and extend to them access to our knowledge resources. We nurture relationships with other partners in education who support our vision or join us to foster common interests. We integrate our mission with our responsibilities. We contribute our knowledge resources impartially in serving our public purposes. As faculty, students, staff, and administrators, we are a community of dedicated learners, scholars, professionals, and practitioners -- all contributing our talents to uphold our standards, and improve ourselves and the broader community in which we live and work. Our responsibilities and obligations toward the advancement of learning, discovery, and engagement in the University and in Indiana extend to our nation and the world.

### STATEMENT OF INTEGRITY

At Purdue, integrity is indispensable to our mission. We act with honesty and adhere to the highest standards of moral and ethical values and principles through our personal and professional behavior, in every action and decision. Trust and trustworthiness go hand in hand with how we conduct ourselves, as we sustain a culture that is based upon ethical conduct. We expect our actions to be consistent with our words, and our words to be consistent with our intentions. We accept our responsibilities, share leadership in a democratic spirit, and subject ourselves to the highest standards of public trust. We hold ourselves accountable for our words and our actions.

To ensure our integrity, we safeguard academic freedom, open inquiry, and debate in the best interests of education, enrichment, and our personal and professional development. We embrace human and intellectual diversity and inclusiveness. We uphold the highest standards of fairness, act as responsible citizens, respect equality and the rights of others, and treat all individuals with dignity.

To fulfill our goals as a learning community, we insist that the objectives of student learning are not compromised. We treat all students equitably, and our evaluations of learning achievements are impartial based on demonstrated academic performance. As students, we understand that learning is the most important goal and we embrace ethical values and principles, and reject academic dishonesty in all our learning endeavors. In the realm of new discoveries, we place the highest value upon truth and accuracy. We acknowledge the contributions of others. We place a higher value on expanding and sharing knowledge than on recognition or ownership.

We work diligently drawing from the strong work ethic of our State of Indiana and are committed to always acting in the best interests of the University. We pledge to make wise use of our resources and to be responsible stewards of financial, capital, and human resources. We operate within the letter and spirit of the law and prescribed policies, and strive to avoid impropriety, conflict of interest, and conflict of commitment.

As members of the Purdue community, we demonstrate unyielding and uncompromised integrity in support of the highest standards of excellence for the University. As individuals, we all contribute to this Purdue standard of integrity as an exemplary model for all universities.

## MISSION

### *Commitment to People*

***Purdue University serves diverse populations of Indiana, the nation, and the world through discovery that expands the frontiers of knowledge, learning that nurtures the sharing of knowledge, and engagement that promotes the application of knowledge.***

#### Characteristics:

- **Knowledge of great depth and breadth** to be explored, expanded, applied, and preserved for access by all learners, scholars, and practitioners to foster their intellectual and professional growth.
- **Research, scholarship, and creative endeavor** -- grounded in the most advanced methods -- that expand the frontiers of knowledge, enhance learning and address societal challenges.
- **Application of knowledge** that responds to technical and social challenges, and creates new opportunities that advance society.
- **Learner-centered, inspiring, and nurturing educational communities** marked by human and intellectual diversity, and the promotion of a dynamic culture of equity and inclusion for all people, in a pervasively supportive climate that fosters excellence of students, faculty, and staff.
- **Programs centered on preparing learners from all walks of life** to succeed as responsible scholars, leaders, professionals, consumers, citizens, and lifelong learners.
- **Partnership in Indiana's economic, social, and cultural development** efforts, and in improving quality of life.
- **Contributions to the public good** that advance the State of Indiana, the nation and the global community.
- **The highest standards of ethics and integrity, and responsible stewardship** of human, physical, financial, and environmental resources.

## VISION

### *New Synergies*

***Purdue University will set the pace for new interdisciplinary synergies that serve citizens world-wide with profound scientific, technological, social, and humanitarian impact on advancing societal prosperity and quality of life.***

#### Characteristics:

- **Visionary interrelationships across disciplines** that position the University as a leader in defining the academic structures and culture needed to become a synergistic, globally engaged university in the 21<sup>st</sup> century.
- **Outstanding success of students** that rivals the very best in a dynamic world in developing successful global citizens and leaders, stimulated by synergistic programs of learning, discovery, and engagement that draw world-wide attention for their quality, relevance, depth, and scope.
- **Field-defining research** that addresses grand challenges of the society, reflecting social awareness and cultural competence, involving multiple disciplines and large-scale partnerships with public and private enterprises on a national and global scale.
- **Critical partnerships in economic development** that advance the prosperity of Indiana, the nation and the world and serve as a model for 21<sup>st</sup> century university engagement in improving quality of life in a diverse society.
- **Recognized global presence** through leadership and impact that positions the University in high esteem among world leaders for contributions in education and practical applications in addressing global needs and challenges.
- **Reformed pathways in Science, Technology, Engineering, and Mathematics (STEM) education** that foster technological and scientific fluency of society, and promote globally competitive scientific and technological knowledge-economy for the nation.
- **Superior quality of life in the workplace** at Purdue that serves as an exemplar for an encouraging, nurturing, energizing, and supportive work and cultural environment for all faculty, staff, and students to excel in their pursuits.
- **Innovative campus design** that signifies its commitment to environmental consciousness and sustainability; aesthetics, functionality, and safety; and responsible stewardship with demonstrable best practices.

## GOALS

Three major goals form the foundation for this strategic plan. These goals are described below.

## *Goal: Launching Tomorrow's Leaders*

***Promote excellence in learning experiences and outcomes, fostering intellectual, professional, and personal development to prepare learners for life and careers in a dynamic, global society.***

### Characteristics:

- **A superior student body**, well-prepared and motivated to undertake educational challenges, **along with accomplished faculty and staff** with global perspectives dedicated toward excellence in student learning and success.
- **Programs of superior quality, relevance, and value in every academic discipline**, strengthened by multidisciplinary synergies that prepare learners to be innovative, successful, and leaders in a diverse global society.
- **Assertion of core competencies** in all academic programs, and **leadership development** through learning experiences to prepare graduates for a dynamic global workplace.
- **Excellence in teaching and support services** with innovative pedagogies and curricular synergies for improved learning and student success.
- **Transformational learning opportunities** that actively engage students to discover, expand, and apply knowledge within their disciplines, across disciplines, and with respect to global issues.
- **Rewarding learning experience and support structures** for graduate and professional students that motivate and challenge them for intellectual growth in specialized areas and for creating new knowledge for potential global impact.
- **Effective programs that expand the pathways to global education** and instill the awareness, necessity, and value of global citizenship widely among all learners.
- **Strong support services** to increase success, retention, and graduation for students from all backgrounds, with particular attention to students performing below their potential success levels.
- **A learning environment immersed in a rich and dynamic culture of diversity**, equality and inclusion for all people, with widespread support and a diverse educational climate for an evolving global society.
- **Growing opportunities for technological and scientific knowledge/fluency**, and increased student participation in disciplines related to Science, Technology, Engineering and Mathematics (STEM).

## *Goal: Discovery With Delivery*

***Advance the frontiers of knowledge, and innovate technologies that address the grand challenges of society to serve humanity and improve the quality of life around the world.***

### Characteristics:

- **Discipline-based research, scholarship, and creative activity** of the highest excellence and significance in advancing knowledge, innovations, and inventions.
- **Multidisciplinary collaboration** among researchers for breakthrough advancements in research programs, and outcomes of profound impact.
- **Field-defining large-scale multidisciplinary research programs** involving public and private partnerships that engage in challenging areas of state, national, and global need and significance.
- **National and international reputation** for a culture of excellence, leadership, and impact of research, along with national and global recognition of faculty, staff, and students for their accomplishments.
- **A successful model for discovery-to-delivery** with research and development as a driver of economic development in Indiana, the nation, and worldwide.
- **Aggressive growth in sponsored funding** for research programs that provides superior support to research, and increases competitiveness consistent with the leading research universities in the nation.
- **A superior research infrastructure** as a model for effectiveness, efficiency, responsiveness, and agility in a dynamic faculty-driven research environment that interacts with national and global partners.
- **World class “best-of-the-best” research faculty, students, and staff** with commitment, dedication, and leadership to grow and sustain a globally outstanding research enterprise.
- **Growth of human and intellectual diversity** in the research enterprise with diverse and global perspectives, catalyzing increased breadth and depth of research opportunities for faculty, students, and staff.
- **Demonstration of the highest standards of ethics and integrity** in research, and in the management of the research enterprise.

## *Goal: Meeting Global Challenges*

***Address the critical needs of society, and catalyze economic development and entrepreneurship consistent with a public research university of the 21<sup>st</sup> Century with global impact.***

Characteristics:

- **A holistic approach for economic development** as an integral part of large-scale research and globalization that serve as catalysts for the growth of economies around the world.
- **Enhanced global dimensions of the engagement portfolio** with a major role in developing and attracting global talent, partnerships, and business relationships that promote Indiana's economic development in the global context.
- **Critical partnerships and strategic alliances with Indiana's economic development** plan titled: *Accelerating Growth*, to foster a dynamic culture of entrepreneurship.
- **Increased impact of Purdue's intellectual portfolio** driven by research, inventions, and innovations that spur business growth with a global outlook and global participation.
- **Scholarly engagement that enhances public knowledge and understanding of global issues** for informed actions affecting current and prospective public interests.
- **Leadership in service and workforce development** with sophisticated professional assistance, value-added lifelong learning, and special attention to advancing a diverse workforce talent pool.
- **Leadership in P-14 educational partnerships** in promoting, facilitating, and expanding opportunities for student preparation for higher education and career development in Science, Technology, Engineering, and Mathematics (STEM) disciplines that lead to increased competitiveness in the global economy.
- **A virtual omnipresence and a substantial presence in key regions of the world** with recognition as a leader in meeting global challenges and contributing to the common good.

## PLAN CONCEPT

### *"New Synergies"*



Purdue University Strategic Plan: 2008-2014

## STRATEGIES AND METRICS

The strategies to achieve the goals of this strategic plan, i.e., *Launching Tomorrow's Leaders*, *Discovery With Delivery*, and *Meeting Global Challenges*, along with the respective metrics to measure progress have been divided into two groups. The first group contains the strategies that are common to all three goals. The second group includes the strategies that are specific to each goal.

The metrics are summarized following the descriptions of all of the strategies, and indicate their relationships to the strategies. They are identified in general terms and will be defined with specificity as a part of the implementation of the strategic plan.

### Strategies Common to All Goals

#### Talent

- A. **Enhance the quality** of the faculty and staff through aggressive recruitment of talented leaders in their fields, with keen attention to increasing diversity; and nurturing retention through professional development and support, supervisory training for leadership positions, and career advancement opportunities.
- B. **Support the initiatives and accomplishments of faculty and staff** with a review of the university-wide faculty promotion and tenure policies to fully reflect the priorities of the University, creation of a university-wide process for staff promotions, instituting appropriate recognition, and redesign of business processes for continual responsiveness.
- C. **Strive for competitive compensation and flexible benefits for faculty and staff** that are equitable and merit-based, and are demonstrative of Purdue's commitment to recruit and retain the very best.

#### Culture

- D. **Foster a more diverse and inclusive campus community**, and encourage such a community in the West Lafayette/Lafayette area, by promoting cultural awareness, collegiality, and by cultivating respect for diverse people and cultures.
- E. **Foster collaborations among disciplines across the university to cultivate new synergies** in educational and research endeavors, and create opportunities through a synergies advancement council/think-tank.
- F. **Encourage a global mindset** across the campus community that values diverse international perspectives and supports collaborations and partnerships to position Purdue as a **synergistic global university** for tomorrow's challenges, with **signature projects that respond to global needs**.
- G. **Continue to promote a culture of assessment** that expects rigorous internal and external review of programs and services for continuous improvement, to increase competitiveness, and engage in best practices for increased effectiveness and efficiency.

## Positioning

- H. **Aggressively enhance media presence and marketing** of Purdue’s vision and the breadth of successes across campus toward increased national and global visibility.
- I. **Proactively promote state relations and partnerships** to sustain and enhance state appropriations support as the backbone for Purdue’s funding base as a public research university.
- J. **Enhance global presence** through position as a global hub for strategic areas (e.g., Purdue’s Nanotechnology Hub), partnerships and research alliances that are carefully developed to serve mutual interests; and educational opportunities including campus-abroad programs, joint/dual degrees, and study-abroad/exchange programs.
- K. **Develop convenient access to large metropolitan areas** (specifically, Indianapolis and Chicago) to facilitate growing collaborations with educational institutions and partners in business and industry, and to enhance travel connectivity for national and global interactions.
- L. **Cultivate the attention and participation of alumni, retirees, and friends around the world** to engage them as partners in expanding Purdue’s connections globally, in assisting with recruiting, mentoring, sponsoring students, sharing best practices with administrators/faculty, and garnering their support in building Purdue’s global presence.
- M. **Continue to build relationships with patrons** toward successful private giving for targeted initiatives that enhance Purdue’s national and global competitiveness.

## Sustainability

- N. **Promote sustainability consciousness** by attending to environmental and ecological stewardship including creating “green “ buildings based on value driven decision processes informed by life cycle costing; social equity and economic vitality; and conducting best practices with designated responsibilities, oversight, and accountability, engaging advisory input from constituencies.
- O. **Develop a functional and an aesthetic campus design** that highlights Purdue’s history and traditions; recognizes successful living, learning, and laboratory spaces; fosters accessibility, way-finding, and student engagement through learning spaces; and promotes interactions between students, faculty, staff, administration, and the greater community.
- P. **Systematically address the repair and rehabilitation of facilities** to provide the high-quality infrastructure needed to conduct successful learning, discovery, and engagement functions that enhance Purdue’s national and global competitiveness.
- Q. **Exemplify Purdue as a “living laboratory”** for learning, discovery, and engagement by establishing a process for campus design and development that allows for exploration of design ideas with hands-on experience, participation, and service.

## Enrichment

- R. **Oversee the responsiveness to campus workplace quality of life** needs and issues with centralized attention, responsibility, and accountability.

- S. **Adjust policies so as to enhance benefits toward a family friendly environment** providing flexibilities for employees to enhance their quality of life while achieving their professional and personal goals, and appropriately address their options upon retirement.
- T. **Engage Purdue's alumni and retirees in university life** involving them in enrichment activities, and as ambassadors for initiatives that would benefit from their experience, and their "Purdue pride."
- U. **Promote health and well-being** of students, faculty, staff, and retirees offering a breadth of fitness, health, and wellness promotion programs, along with recreational services with appropriate facilities and incentives that encourage greater attention to life building skills and personal responsibility with respect to good health practices.
- V. **Encourage participation in cultural and athletic events** with a more welcoming environment for students, staff, faculty, retirees, alumni, and the greater community through accessibility, incentives, public relations, and with "good-neighbors" practices.
- W. **Enhance collaborative and complementary relationships with the greater community** and promote active engagement with local and state-wide community members that promotes a cosmopolitan atmosphere, and contributes to the enrichment of the quality of life involving the arts and cultural activities, the environment, athletics, and other recreational opportunities.

## Strategies Specific to Each Goal

### Strategies for *Goal: Launching Tomorrow's Leaders*

- A. **Reinvigorate the recruitment and retention of a diverse pool of students with enhanced academic preparation**, and attend to their achieving success through effective pedagogy, incentives and support, and outstanding opportunities for career development.
- B. **Substantially increase student financial aid** in order to provide need-based and merit-based scholarships to increase competitiveness in student recruitment and retention, and to reduce student debt upon graduation.
- C. **Recruit and retain student athletes** and achieve athletic and academic success demonstrating national competitiveness.
- D. **Enhance competitiveness in graduate student recruitment and graduate student support** with stipends, fellowships, and benefits to recruit and retain the very best graduate students, so as to enhance and sustain the quality of academic and research program support.
- E. **Develop a greater sense of community** among graduate students with a graduate student support center that addresses their unique needs, and institutional and student life issues.

- F. **Instill in students a passion for academic success as well as life-long learning** through currency in knowledge, pedagogical variety including distance learning programs/options, and conduct learning outcomes assessment for continuous improvement.
- G. **Consider developing a university college** to provide common first-year program options for students to make well-informed choices of curricula before admission to a college/school degree program.
- H. **Undertake the initiatives toward a university-wide core curricular experience** for integration into all degree programs in response to the need for core competencies the graduates must demonstrate, reflecting the value of curricular synergies that render them as informed graduates in a global society.
- I. **Engage all undergraduate students in experiential learning**, early in their careers at Purdue, through involvement in research, service learning, study-abroad programs, and other hands-on experiences appropriate to their curricula.
- J. **Provide exceptional students with enhanced educational opportunities** through an expanded university honors program and accelerated learning options.
- K. **Proactively attend to student success** through early monitoring and positive intervention for students with declining academic success.
- L. **Significantly transform introductory (gateway) courses** and develop effective pedagogies that are appropriate for various learning objectives so as to improve student success.
- M. **Create a centralized framework for student excellence and leadership** to provide comprehensive one-stop support functions that enhance the effectiveness and responsiveness of core student support services, and coordinate activities and experiences that enhance student academic performance, extra/co-curricular activities, and professional development.
- N. **Expand and integrate civic engagement** for students through campus design projects and community service opportunities to prepare for successful citizenship.
- O. **Promote respect and value in an inclusive community** exemplifying diversity in all aspects of a productive, proactive, and nurturing learning environment.
- P. **Enhance pathways to Purdue** by collaborating with Purdue's regional campuses, secondary schools, and other post-secondary institutions to improve student preparation for admission, connection, and transition to the University.
- Q. **Increase student interest and involvement in STEM careers** by developing attractive and inspirational recruiting messages and programs that highlight exciting job opportunities.
- R. **Develop special retention efforts for students to remain in the STEM disciplines** by providing experiential learning and effective support programs, with special encouragement to the underrepresented populations in these disciplines.
- S. **Provide Indiana's P-14 educational communities with leadership** in preparing more students for education and careers in the science, technology, engineering and mathematics disciplines (STEM) and transition to higher education.

- T. **Develop personalized academic connections** with prospective students before, during, and after their enrollment to keep them engaged in their academic pursuits with encouragement, motivation, and support.
- U. **Create opportunities and spaces** for active/interactive/collaborative learning and interaction of students, faculty, and staff to engage in spontaneous and creative informal learning activities.

Strategies for *Goal: Discovery With Delivery*

- A. **Nurture disciplined-based research, scholarship, and creative endeavor** of the highest quality as the primary strengths that undergird the development of successful multidisciplinary initiatives.
- B. **Increase investment to develop a robust infrastructure** that enables expanded discipline-based as well as large-scale interdisciplinary research, with careful operation of critically needed shared research facilities.
- C. **Proactively develop mutually beneficial relationships with research funding agencies** including, federal and state agencies, industries and corporations, and private foundations with a view to aligning Purdue's research portfolio, and increasing responsiveness to funding prospects.
- D. **Enhance research and scientific leadership** by:
  - promoting faculty memberships in national academies, faculty representations on national boards, and rotational positions in national agencies;
  - enhancing senior leadership in research (faculty, administrative);
  - further increasing the research involvement of faculty, supported by postdoctoral fellows, professional staff, and graduate students;
  - implementing mentorship programs for young and mid-career researchers to undertake large-scale research initiatives in areas of strategic opportunities to address needs that bear worldwide impact.
- E. **Focus on breakthrough multidisciplinary research with signature approaches for addressing societal grand challenges** involving core strengths in life sciences, physical sciences, and engineering, while leveraging these strengths to develop synergies with the liberal arts, business, education, and other disciplines that lend special capabilities to such large-scale research and exploration, and their impact. Among the key areas of societal grand challenges are:
 

<ul style="list-style-type: none"> <li>▫ environment/climate</li> <li>▫ energy</li> <li>▫ human health, health care delivery</li> <li>▫ food</li> </ul>	<ul style="list-style-type: none"> <li>▫ water</li> <li>▫ security</li> <li>▫ urban infrastructure</li> <li>▫ personalized education</li> <li>▫ space exploration</li> </ul>
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- F. **Increase the number of endowed professorships** to lead multidisciplinary research, **support high profile faculty teams** in important emerging research areas, and **increase graduate student fellowships** to provide assistance to such research initiatives.

- G. **Realize Discovery Park's promise as an internationally recognized research institute**, pioneering the discovery-to-delivery paradigm for large-scale research, by critically reviewing its expectations and capacity, developing successful initiatives and opportunities, and by investing in its growth and infrastructure as a core facility for multidisciplinary research endeavors.
- H. **Develop strategic alliances** with technology parks, businesses, and other educational institutions, to educate venture capitalists and other early investors regarding the opportunities driven by intellectual property available in Indiana, and to develop a next generation proactive approach to recruiting companies to Indiana.
- I. **Reengineer research business operations** for effectiveness and efficiency, including cost-sharing processes and incentives, using Discovery Park as the model laboratory for exploring such new approaches for widespread adoption across the university.
- J. **Maximize the impact of partnership between Discovery Park and the Research Park** to realize the full potential for leading discovery-to-delivery -- research leading to economic development with state, national, and global partnerships.
- K. **Proactively deliver statewide Cooperative Extension Services** sharing knowledge and skills that are the most advanced and applicable, and by promoting collaboration of experts across disciplines to effectively serve the people of Indiana.
- L. **Conduct discovery, identification, and mapping of existing and potential resources of economic value** for the various regions of Indiana to help spur economic development action items for those regions.
- M. **Encompass inquiry and discovery by broadened participation** of diverse members of the academic community, and pluralism of intellectual pursuits and outcomes.
- N. **Guide the evolution of the large-scale research enterprise** by conducting rigorous, periodic, external and internal reviews of the research portfolio, and provide seed support to new initiatives in selected strategic areas, and/or areas of high risk with potentially high return on investment.

### Strategies for *Goal: Meeting Global Challenges*

- A. **Define the role of Purdue in the 21<sup>st</sup> century entrepreneurial culture** with a visionary program as a national model, focusing on University-wide talent, along with intellectual and physical resources, to maximize leverage, and providing transparent and coordinated access to global intellectual resources.
- B. **Pursue a research-based economic development agenda** that stems from Purdue's strengths and focuses on areas with the greatest impact to Indiana, the nation, and the world, with particular attention to life/health sciences and delivery, agriculture, advanced manufacturing, defense and homeland security, environment/energy, space sciences including aeronautics and astronautics, and the science of education.
- C. **Link research initiatives to market needs and trends** through global partnerships with business and industry in support of the model for discovery-to-delivery.

- D. **Undertake a concerted effort in establishing a global presence** in research and education for Purdue, through well coordinated initiatives involving multiple academic disciplines, for global regions of strategic importance and partnerships.
- E. **Establish a proactive point of contact** for businesses, investors, educational institutions, and communities, to promote Purdue's capacity to provide results of discovery that advance industry in the state, the nation, and around the world.
- F. **Inform public policy** and provide informed leadership to policy discussions by way of a public policy institute that conducts analyses and impact assessments, and promotes coordination between large-scale research and economic development, leading to increased investment funds and impact on regional, national, and global economies.
- G. **Serve as a super cluster for entrepreneurship activities** by aligning efforts with state government to support an entrepreneurial culture that integrates economic development with research and globalization, thereby increasing the impact of the University's intellectual portfolio.
- H. **Establish large-scale partnerships** with public and private organizations, foundations, and other universities, to conceive, support, and execute research that meets society's grand challenges, and adds value to quality of life at the state, national, and global levels.
- I. **Position Purdue globally to help establish a leadership role in economic development** (both metropolitan and rural) in proposing, developing, and executing strategies that enhance economic development in Indiana and Indiana's competitiveness in the global economy.
- J. **Enhance consultative service to business and industry** by providing agile and coordinated mechanisms for matching University expertise to serve their sustainability needs, and their development toward meeting the challenges of the 21<sup>st</sup> Century competitive global markets.
- K. **Provide a sophisticated continuing education environment** for the Indiana workforce, in partnership with other higher education institutions, that serves Indiana's diverse communities to foster the development of and connectivity to a global talent pool.
- L. **Enhance engagement with Indiana's P-14 and post-secondary educational communities** to develop a collaborative, long-term systematic approach toward an educational portfolio that ensures a steady supply of well-educated workforce members for Indiana to continue its quest for a leading role in addressing global challenges.
- M. **Leverage Purdue's asset of a large international student body** by encouraging more synergies with the nationally-derived student body.

## Metrics

[Note: The measures in italics are benchmark measures for peer comparisons.]

Measures	Strategies			
	Common to All	Launching Tomorrow's Leaders	Discovery with Delivery	Meeting Global Challenges
<i>SAT scores &amp; high school rank of admitted students</i>		A, C, P		
<i>Yield for enrollment</i>		Q, R		
<i>Number of students with significant honors</i>		A, C, P		
<i>Undergraduate retention and graduation rates</i>		A, C, J, O, R		
<i>Graduate student time to degree</i>		D, E		
<i>Ph.D.s granted per year</i>		E		
Percent of grads remaining in Indiana			L	B
Honors Programs Enrollment		A, J		
Student program examples (academic, co-curricular, health)	E, J, N, V, W	A, C, D, E, F, G, H, I, K, L, M, N, O, Q, R, T, U		L
Core curriculum examples	E, J	F, G, H, T		D
Assessment Examples	G, N	F, K		F
<i>National Survey on Student Engagement (NSSE)</i>		F, I, K, N, T		
<i>Education &amp; General expenditures per student</i>		A		
<i>Financial aid disbursement</i>		B		
<i>Undergraduate indebtedness upon graduation</i>		B		
<i>Student to faculty ratio</i>		L, T		
<i>Percent of classes taught by faculty</i>		L, T		
<i>Undergraduate class/section size</i>		L, T		
<i>Graduate Stipends</i>		D	A, D, F	
<i>Alumni participation rate</i>	L, M			
<i>Career placement/additional study</i>		F, Q, S		
<i>Rankings/awards (Nat'l &amp; Internat'l)</i>	H			A
<i>Demography (faculty, staff, student)</i>	A, D	A, O, R		
Climate study	A, D, R, S	O	M	M
Professional & personal development programs (faculty/staff)	A, B, D, E, R, S, U, V, W	U	D, F	
Faculty & staff recruitment	A, C		E, F	A
<i>Faculty salary/compensation</i>	A, C, S		A, E, F	A
Staff salary/compensation	A, C, S		A	

Measures	Strategies			
	Common to All	Launching Tomorrow's Leaders	Discovery with Delivery	Meeting Global Challenges
Faculty & Staff retention & severance	A, B, C, D, S		A	A
<i>Faculty &amp; Staff quality &amp; recognition</i>	A, B		A, D, F	
Synergy Examples	E, F	H	E, F, K, I, N	D, F, G, I, M
Assessment of Business Process	B, G, N, P, R, S, U		B, E, G, I	
<i>Sponsored program awards/expenditures/activities</i>	E	D, Q	A, C, D, E, G, L, M, N	B, F
<i>Technology commercialization (licenses and patents)</i>			G, H, J	A, B, C, G, H
Private giving	M	B	B, F, N	
<i>Endowment value</i>	M	B	B, F, N	
Space allocations/facilities/aesthetics	N, O, P, Q, R	D, U	A, B, E, F, G, H	A
<i>National grading of sustainability</i>	N, O, P, Q			
Environmental/Ecological Examples (LEED Certifications)	N			
Engagement Examples (P-14, economic impact)	E, I, T, V, W	N, Q, S	C, H, K, L	B through L
Partnership Examples	F, I, K	P, S	C, G, H, J, K, L, M, N	A, C, D, H, K
Global Presence Examples	F, H, J, K, L		H, J	B, C, D, E, G, H, I, J, K, L, M
Enhanced Marketing Examples	H, W		G	E
Purdue Presence in the Media	H, I, K, L, T, V, W	Q, S	C, H, K, L	C, E, G, I
Friends/alumni/retirees involvement	I, L, M, T, U, V, W			E, J

## PEER INSTITUTIONS

With the vision, goals and strategies delineated in this plan that set the pace for new synergies as a leading research university in the world, Purdue University will compare itself with a set of peer institutions for the purpose of benchmarking to assess progress and competitiveness. For university-level benchmarking, these institutions are selected reflecting the following characteristics.

- Quality that is regarded as comparable to or greater than that of Purdue
- Carnegie Foundation Research-Extensive classification
- Strengths in the sciences, engineering, liberal arts, and management
- Major public institution
- Flagship institution in the state
- Geographic distribution
- Membership among AAU (American Association of Universities)
- Mechanism for collaborative information exchange

Thus the selected Peer institutions include two sets -- one including the public “Big Ten” institutions, and the other representing a wider geographic distribution as public aspirational peers (it should be noted that the two sets have four institutions in common). Various benchmarks will be compared with either or both sets of these peers.

### **Public “Big Ten” Peers**

Indiana University  
 Michigan State University  
 Ohio State University  
 Pennsylvania State University - University Park  
 University of Illinois - Urbana-Champaign  
 University of Iowa  
 University of Michigan - Ann Arbor  
 University of Minnesota - Minneapolis/St. Paul  
 University of Wisconsin - Madison

### **Public Aspirational Peers**

Georgia Institute of Technology  
 Pennsylvania State University - University Park  
 Texas A&M University - College Station  
 University of California - Berkeley  
 University of Illinois - Urbana-Champaign  
 University of Michigan - Ann Arbor  
 University of Texas - Austin  
 University of Wisconsin - Madison

## BENCHMARK MEASURES

Purdue will compare its national and international competitiveness among the public Big Ten peer institutions and the public aspirational peer institutions using the following input and output benchmark measures on an annual basis. These measures are chosen based on competitiveness factors used nationally and the availability of reliable data for such measures. The definitions of these measures and quantifications of targets will be specified as a part of the implementation process for the plan.

Purdue's overall aspiration, as stated in the preamble, is to be among the top-ranked research universities in the world. This means that all units, both academic and administrative, will be aggressively engaged in quality improvements to rise to a significantly higher level, with resulting higher national and international rankings for colleges, schools, and programs.

### **Input Measures**

- Entering students' standardized test scores, high school GPA and rank percentiles
- Student admission/yield for enrollment
- Number of students with significant honors
- Student-to-faculty ratio
- Integrated Post-secondary Educational Data Systems (IPEDS) revenues/expenditures per student
- Undergraduate class/section size
- Faculty compensation by discipline/rank; staff compensation by job/comparison group
- Graduate student stipend level by discipline
- Student financial aid disbursement
- Share of classes taught by faculty as primary instructors
- Endowment value
- Participation rate of alumni as donors

### **Output Measures**

- National and international rankings (institutional and programs) and related criteria
- Undergraduate retention and graduation rates
- Undergraduate indebtedness upon graduation
- National Study of Student Engagement (NSSE) [includes study-abroad participation]
- Graduate student time to degree
- Ph.D. degrees granted per year
- Graduates' career placement and advanced study enrollment
- Sponsored program awards and expenditures
- Faculty recognition (national academy memberships; national/international awards)
- Demography of underrepresented populations (faculty, staff, students)
- Licenses and patents for technology commercialization, and start-up companies per year
- National grading for sustainability characteristics

## KEY PRIORITIES/INVESTMENT AREAS

Achieving Purdue's new vision - *New Synergies* - will require setting key priorities and investment of resources in targeted areas. Revenue increases from various sources along with reallocation of existing resources will be utilized effectively and efficiently toward achieving the goals. While many of the strategies identified in this plan will be implemented utilizing existing resources, several priorities will require new and/or increased investments in order to accelerate progress in critical areas. With an overriding commitment to improving talent, diversity and inclusiveness, and the quality of programs and services across the university community, the key priorities for synergistic approaches toward success of the strategic plan are summarized as follows:

### **Student Success**

- a. Increase recruitment of excellent students
- b. Develop a plan to ensure increased diversity of student body
- c. Provide honors and other accelerated learning programs for best students
- d. Market Purdue's advantage for recruiting STEM students
- e. Improve retention/graduation rate of students
- f. Enhance first-year and second-year experience, including developing a university-college for students entering without identifying a major
- g. Redefine "access" to Purdue, increasing enrollment at regional campuses
- h. Develop university-wide core curriculum
- i. Foster success in "gateway" courses through new pedagogy
- j. Enhance experiential learning opportunities (research, global, service)
- k. Develop centralized "hub" of services to foster student excellence and leadership
- l. Pursue funds for increased financial aid & scholarships (need and merit)
- m. Renovate and revitalize student wellness, fitness, community center

### **Faculty/Staff Development and Work-life**

- a. Promote faculty for significant national awards, honors
- b. Review/revise faculty P&T process to be aligned with strategic goals
- c. Implement staff development programs and a campus-wide system for staff promotion
- d. Achieve competitive compensation for faculty and staff
- e. Achieve competitive stipends for graduate students
- f. Enhance family-friendliness with prioritized menu of flexible benefits

### **Research Competitiveness and Economic Impact**

- a. Build on Purdue's current strengths, with investments in new facilities and infrastructure, and develop new business plans for financial sustainability
- b. Identify strategic research areas for new investment. These areas should encourage new synergies across disciplines, and address regional, national, and global areas of critical strategic interest
- c. Increase senior research leadership, especially in identified strategic areas
- d. Increase strategic research alliances and partnerships (incl. IU partnership)
- e. Aggressively seek large-scale corporate and federal sponsorship
- f. Provide seed funding for new strategic research areas
- g. Accelerate intellectual property (IP) commercialization of Purdue discoveries

- h. Attract more faculty onto “Discovery, Development, Delivery” highway with incentives, support for infrastructure, stronger ties to research parks
- i. Promote more robust infrastructure, including cyberinfrastructure, for both single investigator and large-scale research efforts; and invest in core instrumentation facilities to serve campus research goals and projects

### **National/Global Presence**

- a. Raise rankings of all Purdue colleges to new levels (hiring at senior level, promoting faculty for honors, marketing achievements and strengths)
- b. Seek strategic global partnerships that enhance Purdue brand
- c. Grow and recruit leadership to address critical global challenges
- d. Establish signature programs abroad; become national role model for global partnerships with impact
- e. Reorganize or elevate selected Purdue offices to higher status to achieve strategic plan goals (e.g. Human Resources, Diversity, Policy and Global Affairs, Marketing and Media, Sustainability, and Research)
- f. Establish an institute for policy and global affairs
- g. Embrace Purdue alumni worldwide in assisting with recruiting, mentoring, sponsoring students, sharing best practices with administrators and faculty, building and extending partnerships globally
- h. Leverage asset of large body of international students at Purdue by encouraging more synergies with nationally-derived student body

### **Campus Design**

- a. Partner with regional communities on quality of life issues (arts, culture, environment)
- b. Realize a “living laboratory” concept through hands-on exploration of design concepts
- c. Enhance facility repair and rehabilitation, aesthetics, and functionality of the campus
- d. Incorporate sustainability and environmental/ecological consciousness
- e. Implement a new campus master plan, in concert with the local community

## FUNDING THE PLAN

Purdue University has created an ambitious strategic plan to achieve a global leadership position. The implementation of this plan requires a carefully crafted funding strategy that recognizes the critical interdependence of various funding sources, and the importance of the partnership among these funding sources to support the key priorities.

A funding plan is being developed. It will be described once it is finalized.

## IMPLEMENTATION

Purdue has undertaken the implementation of this strategic plan following its approval by the Board of Trustees. Based on the goals and strategies articulated in this plan, Purdue will reorganize or elevate selected offices to higher status in order to position itself to achieve the goals. Annual action plans will be crafted to implement specific initiatives. These action plans will be implemented by Purdue's administration and other responsible offices at various levels of academic as well as non-academic units with oversight and accountability. This implementation will engage faculty, staff, students, and other constituents through Purdue's structure of institutional governance.

Using this strategic plan as an overall framework, each college, school, and other academic or non-academic unit will develop its own strategic plan demonstrating congruity and consistency with the university strategic plan. These plans will delineate respective strategies to improve their national and international competitiveness. The plans will require the approval of the offices of the President and/or the Provost and the Vice Presidents as appropriate.

Resource development, annual budget allocations, and reallocations will demonstrate alignment with the priorities of the strategic plan and related initiatives. These will include both recurring allocations for on-going initiatives, and nonrecurring allocations for special one-time initiatives.

Comprehensive assessment of progress on the strategic plan, including the specifically defined metrics and benchmarks for peer comparisons, will be conducted every year. This will involve the participation of assessment committees with representation from appropriate university constituencies. This culture of assessment/data-driven decisions will also include annual assessment of funding investments vis-à-vis progress on critical benchmarks and metrics. Based on this assessment and changes in the funding environment, mid-course adjustments may be made to the strategic plan as appropriate.

Annual progress reports will be presented to the Board of Trustees, and will be made widely available to the campus constituencies, state/national/international audiences, and the public. Thus, the implementation and progress assessment of the strategic plan will demonstrate transparency and commitment to accountability.

Together with the Board of Trustees and the breadth of Purdue's constituents it serves, the entire Purdue community looks forward to building critical resources and implementing this strategic plan to achieve its goals toward a new energizing vision: *New Synergies*.