Vision

We educate, discover, and invent. We engage students seeking educational achievement and opportunity, faculty seeking excellence and relevance, and organizations seeking solutions and talent. We creatively bring intellectual rigor, technological innovation, and a passion for science to the communities where we work and live and to the citizens of the world.

We innovatively extend the benefits of science, engineering, management and liberal studies to critical real-world opportunities and challenges, especially those linked to urban systems, health and wellness, and the global information economy.

Mission

To excel as a leading high quality research university engaged in education, discovery and innovation with social, intellectual and economic impact in the New York region, the nation and the world.

The Strategic Plan for Polytechnic University: 2007-2010

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I. Purpose

The purpose of this Strategic Plan is to establish a set of goals, objectives and actions that will build on a proud 150 year history and initiate a transformation of Polytechnic University into the leading research university described in its mission statement. Successful execution of the Plan will position us as:

- An enriched and distinctive educational environment for all students to learn, discover and create
- An innovative leader among technological universities
- A center of creative energy for both faculty and students engaged in scientific research, development and innovation
- A vital part of the educational and intellectual landscape of the New York region and an asset to the nation and world
- A center of opportunity for achieving upward social mobility through a successful career in science and engineering
- A source of pride for alumni and other supporters
- A university with a strong financial foundation that sustains our commitment to excellence and innovation

II. Background and Context

The Plan has been developed in the context of the University's history, its strengths and weaknesses, and the competitive environment in which it is positioned. These establish the initial conditions and constraints from which we will work to achieve our goals.

Polytechnic University is a small, independent, urban, technology-focused university. In broad terms we must capitalize on these attributes by championing and communicating that

- small implies “personal”
- independent implies “selective and excellent”
- urban implies “people-focused and inspired by New York, one of the world’s great cities”
- technology-focused implies “dedicated to the creative use of science and engineering as the key change agents for the 21st century”

These concepts inspire and motivate the goals and objectives which form the basis of the Strategic Plan.

Poly is building on a 150-year history that has seen remarkable growth and change. In recent decades the development of MetroTech has transformed our physical surroundings from an area of urban blight into a large urban university and corporate park. The extraordinary $175 million Othmer bequest and the successful $100 million capital campaign enabled a $125 million building
program that transformed the Brooklyn campus and provided a $130 million endowment that contributes significantly to our financial operating model.

Despite these recent accomplishments, the university has not achieved financial strength. We have an $85 million bond debt and cash reserves have been used in recent years to cover operating deficits. A key goal of this strategic plan is to make use of the results of past capital investment to grow the university to a scale that is economically sound.

Poly’s transformation will occur in a world that is awash in change. That change is driven by technology and has leveled the playing field on which new ideas and products can compete. This can work to our advantage. Continued dominance of current leaders is no longer assured, and Poly’s agility will provide the opportunity for changes that can elevate us to selective preeminence.

We must undertake this challenge with full knowledge of our major strengths and weaknesses and of the many opportunities and threats in the world in which we operate. These strengths, weaknesses, opportunities and threats are summarized as follows:

**Strengths**

- Our urban NYC location, and Brooklyn especially
- Our size: small enough to be personal and agile
- A lean structure with potential for operating efficiency
- Accredited academic programs, strong in fundamentals
- Diversity of students
- Our nationally-recognized leadership in providing upward social and economic mobility for our students. The concept of the “American Dream” was born in Poly and we continue to provide opportunity for thousands to realize their own American Dream
- A rich history of educating leaders
- Our focus on what will be the key 21st century drivers: science, technology, engineering, mathematics, innovation, and invention
- Graduates aggressively recruited by employers; opportunities of choice with high starting salaries
- Academic strength of individual faculty members
- A modern dormitory that allows for an urban resident student body
- Recently built library and academic buildings
- Small set of very loyal alumni
- New senior leadership team
- Committed Board with valuable connections

**Weaknesses**

- Operating below the point of financial strength with limited cash reserves, necessitating expense controls that negatively affect facility maintenance and resources
- Student application rate too low, which leads to pressure on admission standards
- Retention and graduation rates too low
- Insufficient opportunity for professional improvement and growth in some mid-level positions and below
Insufficient collaborative activity among the faculty
Not enough flexibility in programs to allow experimentation, particularly with internships and entrepreneurship initiatives
Lack of diversity in faculty and Board
Insufficient recognition in the education world
Tier 3 in US News & World Report ranking; the students we want have many other options among higher ranked schools
Limited facilities, some of which suffer from extended deferred maintenance
Limited participation by commuter students in campus life

**Opportunities**

- Poly could move to the leading edge of higher education by adding innovation, invention, and creativeness to the traditional education and research experience
- We could become a key engine of education, innovation and economic growth for Brooklyn in the 21st century
- Facilities have the capacity to operate more efficiently with a fifty percent higher population of students and faculty
- Development opportunities to add quality space and enhance campus identity
- The political environment has many leaders interested in helping
- We can make a case for growth that would be very attractive to prospective faculty, students, and donors
- Increased sponsored research and better deployment of research funding to achieve a more positive impact on our operating budget
- Collaboration with the many New York City institutions having complementary capabilities and facilities
- Successful execution of this Strategic Plan will lead us to tier 2 in the USN&WR rankings, thereby improving recruiting and retention of students.

**Threats**

- Government-subsidized schools in our area (CUNY, SUNY) offer lower tuition and have improved their quality and reputation
- Failure to adequately explain the benefits of our vision to motivate our stakeholders: faculty, staff, students, board, alumni and supporters
- Unproven ability to establish the discipline to follow through on execution of this plan
- Insufficient expansion of the base of financial supporters beyond the traditional, but small, core of loyal alumni
- Insufficient reserves to call on in event of a natural disaster, terrorist act or internal crisis
- Conflict between the long-term strategy that enables the university to become excellent and distinctive and the necessity to provide financial stability during the transformation.
During the past year the University has taken steps to build a foundation for transforming itself. A series of four University-wide workshops has created and refined the vision and strategy. A leadership team of results-oriented administrators and faculty has been recruited or reassigned to drive the execution of the Plan. An initial $5 million “angel fund” has been raised and invested in new initiatives to fuel the initial execution of the Plan. Longer-term funding sources have been identified, including enhanced tuition revenue, real estate development, renegotiation of our current bond debt, and successful execution of a $75 million fundraising campaign.

III. Goals

To lift the University from its precarious financial situation and be true to our mission we must creatively focus our collective energy, skills and resources on activities that will achieve three primary goals:

- **excellence** in our core of broad educational and research programs
- **distinction** in a limited number appropriate multi-disciplinary focus areas
- **resources** that create financial stability and allow investment for future growth and continuing improvement.

We view *excellence* in all we do as the underpinning of our long term success. It instills pride and motivation in students and faculty and enhances the value of every Polytechnic degree. Coupled with the agility characteristic of a small, independent institution we will become distinct and preeminent in a small number of areas appropriate for the times and our environment. These may change over time, but underlying excellence will allow us to evolve and establish distinctiveness and preeminence in new areas. As individuals and groups of individuals in departments, programs or other units, we will educate, discover and create to standards of excellence embraced throughout the University and admired by all who know us. Issues and opportunities which relate to factors contributing to excellence will be addressed as part of this Strategic Plan.

The second goal, “**distinction,**” likewise requires elaboration. Excellence alone will not distinguish Poly in the competitive environment of higher education. We must also have areas of distinction that are intellectually and socially important. But, as a small university, we must choose only a few areas in which to achieve this distinction. Following a series of wide-ranging workshops and discussions involving many stakeholders, the following three thematic areas emerged for primary emphasis:

- **Urban Systems:** For the first time in history more than 50% of the world’s population now lives in cities. Poly will apply both traditional and new disciplines to the solution of urban challenges, using New York City as our laboratory.
- **Health and Wellness**: Science is unlocking the mysteries of disease and the secrets of health. Poly will use its established strengths in a multidisciplinary and collaborative approach that will provide the technology to accelerate the process of extending scientific discovery into tools that will deliver health care benefits to the people of the world.

- **Global Information Economy**: Social, economic and institutional complexity is now managed in a digital environment that Poly has helped to create. We will become a leader in understanding, expanding and controlling the application of digital technology to social and economic challenges and opportunities.

The unifying action for all three thematic areas is: using creative processes in the pursuit of practical achievements. In all three we will stress **invention**, **innovation**, and **entrepreneurship** by collaboratively involving faculty, students and outside organizations.

Finally, the University requires **resources** to sustain excellence and invest in new growth areas. For too long Poly’s operating resources have been insufficient to sustain its commitment to excellence and need for distinction. We changed our surroundings from an area of decay to a revitalized commercial and residential area through creation of MetroTech and we improved our facilities with new and renovated buildings. But this process is not complete and there are now opportunities for further development of our buildings and campus by judiciously exploiting land and air rights in collaboration with developers to create attractive new space and revenue streams. We also have the opportunity to garner the good will of loyal and successful alumni and others for philanthropic support. Successful exploitation of these two opportunities is at the core of the resource goal of this Strategic Plan.

Achieving the goals of this Plan requires a structure that includes the following:

1. **Clear objectives** that support achievement of the goals

2. **An Implementation Plan** that includes action plans that guide activity to reach the objectives and achieve the goals, and clear metrics to quantify progress towards the goals and objectives.

The first of these follows below. Though critically important, item 2 is **not** included in the body of this Strategic Plan. It constitutes a separate **Implementation Plan** necessary to achieve the goals and objectives of the Plan.

Rigorous execution of this Strategic Plan will make Polytechnic more attractive to potential students and the University’s degree more valued by enrolled students. As a consequence, the University’s continuing priority of enhanced recruitment and retention of students will, thereby, be achieved.
IV. Objectives

A. **Excellence** in our core of broad educational and research programs
   1. Identify and develop a small number of areas of strength for each department to focus on as areas for which they will be known among their peers.
   2. Establish standards of excellence to propel us to the forefront in our chosen areas of focus.
   3. Transform the Undergraduate and Graduate student experience to contribute to the distinction and excellence of the University, and enhanced student enthusiasm for the Polytechnic experience.

B. **Distinction** in a limited number appropriate multi-disciplinary focus areas: Urban Systems, Health and Wellness, and Global Information Systems
   1. Create an inventive community that will propel us toward the new university with an environment of education, research and innovation, with focus on these three areas.
   2. Develop innovation and creativity as the wrapper of technical education that makes us distinctive.

C. **Resources** that create financial stability and allow investment for future growth and continuing improvement
   1. Increase revenue through improved and expanded educational offerings, i.e., new delivery modes and curriculum content.
   2. Convert research and scholarship activities into additional revenue streams.
   3. Leverage Polytechnic’s network of alumni, friends, and contacts to enhance revenue generation.
   4. Increase philanthropic support through improved unrestricted annual giving and a comprehensive campaign directed at individuals, foundations, and corporations.
   5. Manage revenues and expenses for maximum impact, refinancing/restructuring our bonds, improving capital and debt structure, and deriving value from our real estate development rights.
   6. Develop a building and facilities design, finance, and action plan that will provide Polytechnic with the physical environment and identity to support the excellence and distinction that is the core of our transformation. This capital improvement plan will get underway during the next three years and will extend into the years beyond this Strategic Plan.
V. Relationship to the Implementation Plan

This Strategic Plan is the fundamental roadmap to our future. It is the document that will provide each person connected to the university a basis for setting priorities and taking action. This includes trustees, the president and his team, faculty, staff, students, and alumni.

As CEO, the president has overall responsibility for the execution of the plan. The Board of Trustees, through its Long Range Planning Committee, will provide oversight, strategic guidance, and resources for the execution of strategies.

The plan is hierarchical. The vision and mission inspire the goals and objectives. Each of the objectives is in turn supported by a set of action plans. These action plans each have a responsible person, resource requirements, a time line and metrics of success. The complete set of action plans and metrics for measuring success, constitute the Implementation Plan, which is a document separate from this Strategic Plan.

The Vision, Mission, Goals and Objectives which constitute the Strategic Plan are the foundation of our transformation. The Implementation Plan is our tactical roadmap and will be assessed and adjusted each year to assure that this Strategic Plan’s goals and objectives are achieved.

The president and his management team will monitor the progress of the action plans and the connection of their progress to other action plans and Strategic Plan objectives. The Long Range Planning Committee (LRPC) of the Board’s Executive Committee will evaluate progress and provide advice to the management team to help achieve success. The management team will provide semi annual reports to the LRPC and progress reports will then be distributed to the Board.

VI. Conclusion: The Future is Ours to Shape

Polytechnic has a special opportunity to transform itself into a leading new university suited for a new age of global competitiveness and opportunity. Our agility and commitment to change make us well-suited for the challenges ahead.

For Polytechnic, success in this new age will depend on our achieving core excellence while infusing invention, innovation, entrepreneurship, and creativeness into the total Poly experience. This Strategic Plan provides the focus and guideposts that can assure our emergence as an educational force helping to shape the future of our community, our nation and the world.