

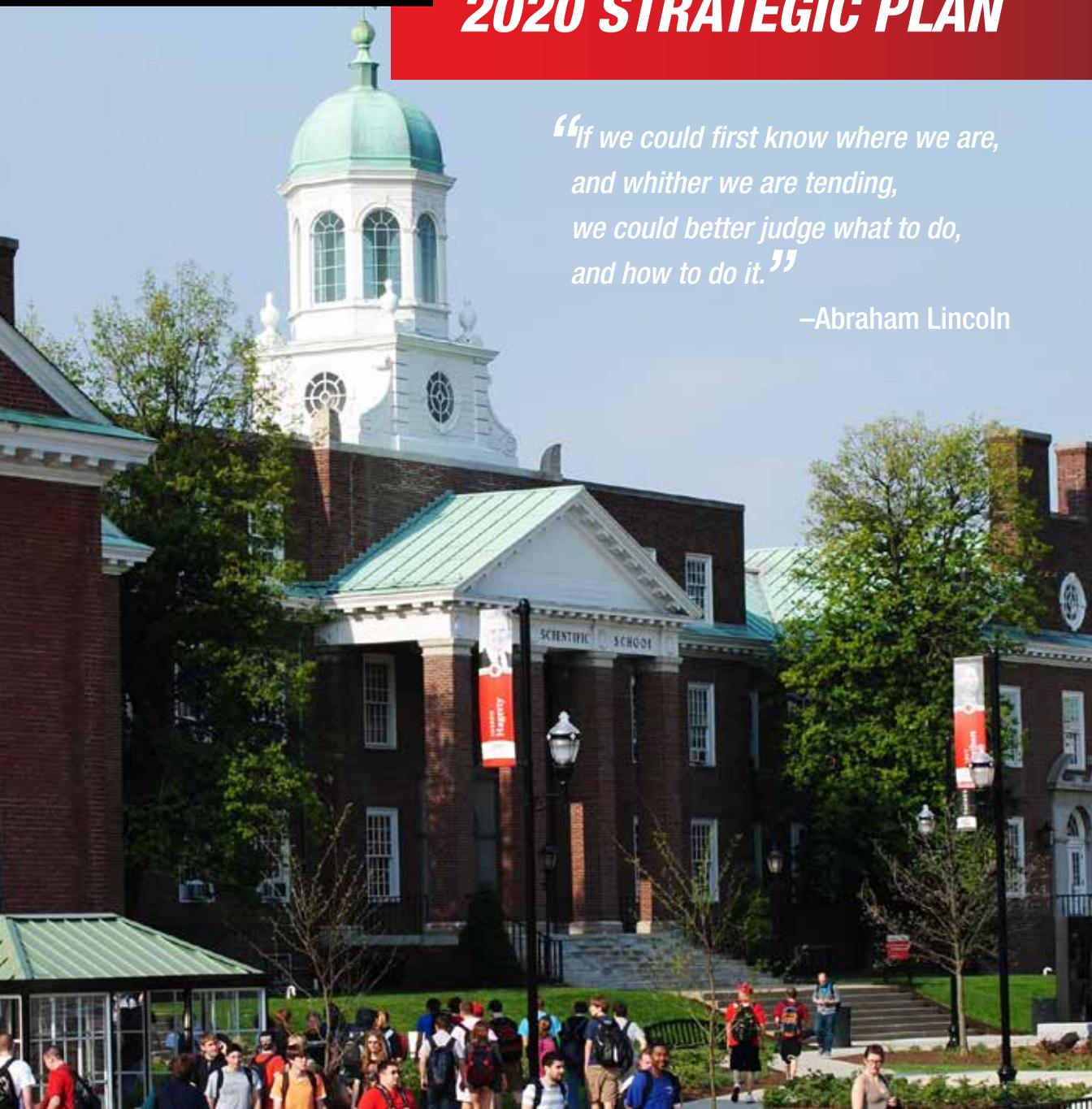
UNIVERSITY OF
LOUISVILLE

J.B. SPEED SCHOOL
OF ENGINEERING

2020 STRATEGIC PLAN

*“If we could first know where we are,
and whither we are tending,
we could better judge what to do,
and how to do it.”*

—Abraham Lincoln





Since its founding in 1925 as a memorial to the late James Breckenridge Speed, the **J.B. Speed School of Engineering** has been recognized as a **premier, metropolitan engineering institution**. The School has been built on a foundation of exemplary faculty and staff, talented and committed students, outstandingly accomplished alumni, and generous donors. It is a special place where the dreams of many for a better life and better world have been empowered.

The Speed School community is **proud of its long history of accomplishments in engineering education, scholarship, and service to the community.**



But there are many challenges and unknowns ahead. What will engineering education look like in 15-20 years? How should we prepare for and lead in a time of disruptive change? What must we do to ensure access to engineering education in an environment of eroding public financial support? On what areas of research should we focus to best respond to societal needs and fulfill aspirations of national prominence? How can we best impact the economic development of our region and contribute to the wellbeing of our community? These are just a few of the many questions that the Speed School community collectively considered in developing a **road map for the future**. The **2020 Strategic Plan**, defines clear directions and the vital tasks required to continue to powerfully launch the dreams of generations of students to come, to enable research discoveries that transform the human condition, and to ensure the betterment of our community.



OUR MISSION

To serve the university, the Commonwealth of Kentucky, and the engineering profession by providing high quality engineering education programs; engaging in research and scholarship that advances knowledge; and partnering in the economic development of the greater Louisville region, Kentucky and the nation through workforce development and technology transfer.

OUR VISION & VALUES

Our vision is to become the preeminent provider of high-quality, accessible, and experiential-based engineering education and a national leader among public, metropolitan engineering institutions in research, scholarship, and creative activity. We will achieve this vision while staying true to our core values:

- **Strive for excellence** in all that we do
- **Uphold and encourage** the **highest ideals** and **ethics** of the engineering profession
- **Build a diverse community** of faculty, staff and students
- **Provide a personalized approach** to teaching, learning, and research for our students
- **Seek to create and communicate** new knowledge and ideas that improve the quality of life
- **Serve as trusted stewards** of our culture and resources
- **Foster productive connections** with our alumni, our University, and the world at large
- **Promote policies and practices** that maintain a positive workplace environment





OUR GOALS

1

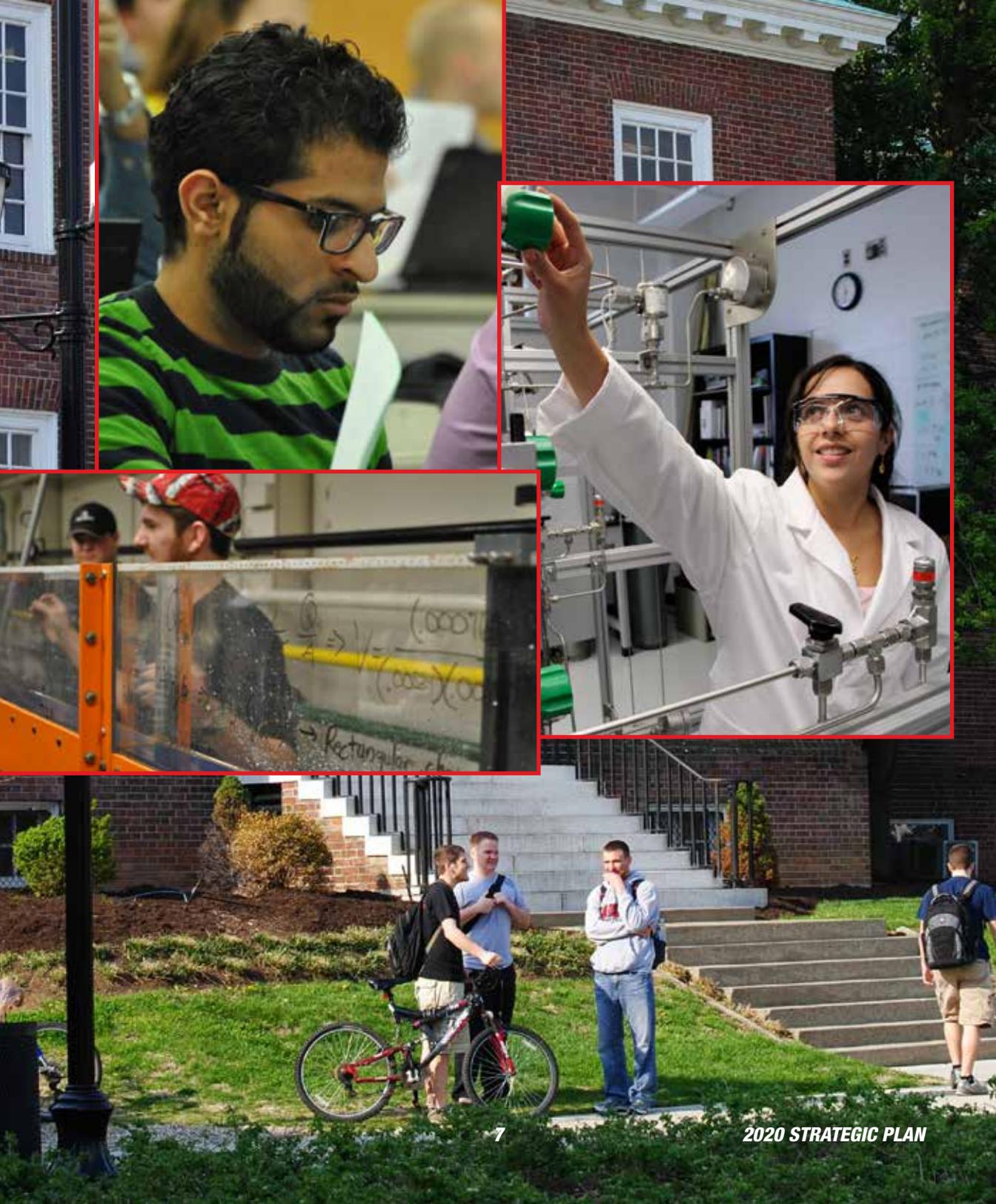
▶ **Educational Excellence**

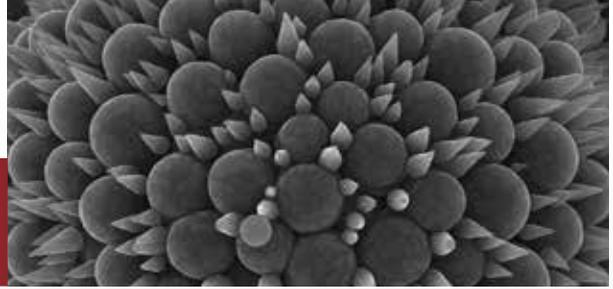
Our goal is to produce world-class engineers who are well-prepared to meet the challenges of tomorrow with competitive critical thinking and problem solving skills, the ability to communicate and interact within a diverse society, immersion in current engineering practices, and a lifelong quest for new knowledge. To achieve this goal, we will:

- A. Attract motivated, prepared and talented students** into all degree programs
- B. Engage students** with state-of-the-art accredited engineering programs
- C. Provide outstanding experiential learning and professional development** experiences
- D. Improve** the delivery of **student services** to increase student retention and graduation rates
- E. Foster the continuous improvement of teaching and learning** and support the scholarship of teaching

▶ **Initiatives**

- Establish a unit-level strategic enrollment management plan
- Review and modernize program curricula and modes of delivery
- Earn World Association for Cooperative & Work-Integrated Education (WACE) Accreditation of cooperative internship program
- Reorganize student services to include professional centralized advising for all students
- Establish a Center for Teaching and Learning Engineering





OUR GOALS

2

▶ **Research, Scholarship and Creative Activity**

Our goal is to create and translate knowledge, educate future generations of researchers, apply our research findings to improve the overall quality of life, and communicate and share our research success for the betterment of society at large. To achieve this goal, we will:

- A. Significantly increase research and innovation activity**
- B. Establish areas of research excellence in:**
 - Energy and sustainability
 - Advanced manufacturing and logistics
 - Engineering human health
 - Cyber enabled discovery
- C. Grow existing strength in materials science and engineering**, including nanoscience, to underpin overall research capability
- D. Translate research results** to realize commercial value
- E. Greatly increase national recognition** of Speed School research activities

▶ **Initiatives**

- Increase faculty strength within areas of research excellence
- Establish the Innovation and Product Realization Institute (IPRI)
- Establish a strong Speed School presence in the Belknap Engineering and Applied Science Research Park
- Streamline research administration processes and expand research support and mentoring services
- Establish a Speed Research Advisory Committee



OUR GOALS **3**

▶ **Community Engagement**

Our goal is to be a driving force for change in the community by applying our engineering expertise to the solution of real-world problems. To achieve this goal, we will:

- A. Increase** the number of **partnerships** and **collaborations** with both private and public institutions
- B. Serve** as the **public square** where the engineering community and the public can gather for programs, lectures, and conversations about the engineering challenges of our times
- C. Enhance communication** and **marketing** efforts to better engage the community
- D. Improve** the **quality** and **quantity** of **interactions** between the school and its alumni to better utilize their unique perspectives on the needs of the engineering community
- E. Strengthen outreach activities** to grow the pipeline of prepared students into engineering

▶ **Initiatives**

- Expand K-12 outreach function to include public and private organization interaction
- Renew and update website, social media presence, and hardcopy marketing materials
- Implement program for school-wide lecture series and public events



OUR GOALS 4

► **Diversity and Opportunity**

Our goal is to maintain a diversity of background and perspective of faculty, staff and students, and provide increased opportunities for all. To achieve this goal, we will:

- A. Increase the percentage of underrepresented students and faculty** in the school, with particular focus on attracting a more diverse population of races and ethnicities, women, and first generation college students
- B. Improve professional and career services** for students and alumni
- C. Enhance the role and impact of student groups and professional societies** to encourage lifelong learning and service
- D. Increase the number of international learning opportunities** for students and faculty
- E. Implement professional development and mentoring programs** for faculty and staff

► **Initiatives**

- **Build outreach function to focus on recruitment of under-represented students**
- **Expand co-op and career development focus to include international opportunities**
- **Establish a comprehensive faculty mentoring program**
- **Expand number of need-based scholarships available**
- **Strengthen staff professional development**



OUR GOALS **5**

▶ **Responsible Stewardship**

Our goal is to effectively steward our valuable human resources, financial assets, equipment, infrastructure, information, and technology, to provide the highest quality of teaching, research and professional service. To achieve this goal, we will:

- A. Streamline academic, research and administrative processes** to increase productivity
- B. Increase annual gifts and endowments** to the school to support the strategic plan
- C. Improve our engineering campus, facilities, classrooms and laboratories**
- D. Ensure** that our unique **educational environment remains affordable** to all qualified students
- E. Implement effective evaluation and rewards systems** that promote and encourage faculty and staff productivity

▶ **Initiatives**

- Establish a centralized business center
- Establish a centralized information technology group and virtual server environment
- Renovate the J.B. Speed Building and make classroom upgrades throughout school
- Implement *Digital Measures* for annual reports and evaluations of faculty and departments
- Survey faculty/staff satisfaction with business/admin/IT processes



For more specifics on implementation and accountability,
please visit www.louisville.edu/speed/StrategicPlan

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