

# MISSOURI S&T

Rising to the Challenge  
2013-2020



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# Mission, Vision, Values

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## Mission<sup>1</sup>

Missouri S&T integrates education, research and application to create and convey knowledge that serves our state and helps solve the world's great challenges.

## Vision

Missouri S&T will be the leading public technological research university for discovery, creativity and innovation.

We will cultivate curiosity, creativity and confidence in our graduates. We will be the institution of choice for partners around the world seeking a highly qualified, talented and entrepreneurial workforce; innovative research; relevant educational programs, products and services; and technology and ideas to solve the great challenges of our time.

## Values

### Lifelong Success

We add exceptional value. The rewards of the Missouri S&T experience extend far beyond a college education, valued degree or gratifying career. The S&T experience prepares you for a fulfilling life defined by the confidence to succeed, a desire to excel and a love of learning that never stops.

### Creativity

We are innovators. Building a better world demands a creative spark, innovative and entrepreneurial approaches, and curiosity to discover and explore new solutions to the world's great challenges.

### Integrity

We hold ourselves accountable for our actions. We strive to uphold the highest ethical standards, to conduct ourselves with trustworthiness and respect for all of humanity, and to instill in our campus community these same principles.

### Sustainability

We live by example. As stewards of the public goodwill, the financial resources entrusted to us, and the environment, we emphasize resilient and sustainable practices in all our endeavors.

### Partnerships

We are great partners. We focus on adding value and creating mutually beneficial partnerships. The solutions to today's great challenges require agile collaboration, teamwork and engagement with our stakeholders, both on campus and in the greater business, civic, national and international communities.

### Inclusion

We are an inclusive, welcoming community. We seek to build a creative learning environment marked by openness, understanding and valuing all people and perspectives.

<sup>1</sup> University of Missouri System Board of Curators approved in September 2013

## Strategy Statement

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**Missouri S&T will provide by 2020 a top return on investment among public research universities to students, employers, research partners and donors through extraordinary access to renowned expertise, services and experiential learning opportunities.**

*Missouri S&T will provide by 2020 a top return on investment ...*

Missouri S&T's reputation for providing an excellent return on investment (ROI) for students is well-documented by national publications and media outlets. We intend to build on that national reputation to provide a top ROI for all of our key customers — not only our students, but also the employers who hire them, the research partners who team with S&T and the donors who support S&T through their gifts.

For each of these customer groups, we will measure ROI based on a number of metrics, including:

- Starting salaries for undergraduate students.
- Engineering doctoral students per faculty.
- Number of graduate engineering/science distance/online programs, number of students enrolled via distance or online.
- National Science Foundation grant expenditures per faculty, number of invention disclosures.
- Employer satisfaction with hires.
- Donor satisfaction with the S&T giving experience.
- Third-party resources (such as *PayScale*, *U.S. News & World Report* recruiter assessment score)

Missouri S&T will become the institution of choice for partners seeking a highly qualified, talented and entrepreneurial workforce; innovative research; relevant educational programs, products and services; and technology and ideas that help solve the great challenges of our time. We will accomplish this by building mutually beneficial relationships, fostering trust and confidence, breaking down barriers to success, and demonstrating our value added as a global university that integrates cross-cultural understanding in all aspects of our educational enterprise.

*... among public research universities ...*

An anticipated outcome of this focus on ROI is an enhanced visibility and awareness of Missouri S&T's reputation as a leading technological research university.

We will benchmark our performance for each key customer group against select comparator universities.

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## Strategy Statement

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*... to students, employers,  
research partners and  
donors ...*

*... through extraordinary  
access to renowned expertise,  
services and experiential  
learning opportunities.*

Missouri S&T has identified six key customer groups:

- Undergraduate students
  - Research-based graduate students
  - Distance and online students
  - Research investors
  - Employers
  - Donors
- 

What sets S&T apart? First of all, our focus. Founded in 1870 as one of the first technological universities west of the Mississippi, Missouri S&T belongs to a select niche of institutions known collectively as “technological research universities.” These eight public and eight private institutions share common traits: a high percentage of STEM (science, technology, engineering and mathematics) and business majors, doctoral programs in STEM disciplines, a robust research enterprise, and thriving humanities and liberal arts programs.

Building on that focus, S&T provides:

- Direct, personal access to nationally and internationally known researchers, faculty, staff, and facilities
- A broad array of experiential learning opportunities for every student
- Innovative public and private partnerships that deliver solutions of global importance and local impact

S&T is committed to providing an inclusive environment that fosters creativity, innovation and an entrepreneurial spirit in all we do — from ground-breaking research to modes of learning to sustainable and ethical business practices.

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# Themes and Levers/Categories of Actions

**Missouri S&T's  
Strategy for  
Success  
2013-2020**

Themes	Levers/Categories of Actions
1 Develop and inspire creative thinkers and leaders for life-long success	1.1 Require all undergraduate students to participate in some significant experiential learning activity before they graduate. 1.2 Foster innovation and creativity for faculty, staff, students and administration. 1.3 Establish database of measures to define student access to faculty and staff. 1.4 <i>Create professional and leadership development opportunities for faculty, staff, alumni and students.</i> 1.5 <i>Encourage and enhance collaboration in teaching and research.</i>
2 Enhance reputation and raise visibility	2.1 Employ transformative and focused hiring, including cluster hires, in selected areas of expertise to support best-in-class achievements. 2.2 Leverage S&T as Missouri's technological research university. 2.3 Develop a culture of excellence in research, scholarship and creative activity among faculty, staff, and students. 2.4 Create and implement a communication and marketing plan to raise the visibility of the campus and convey our return on investment. 2.5 Modify our conventional methods of teaching and research to accommodate current and new technology that will enhance student learning and increase faculty productivity. 2.6 <i>Improve infrastructure that enables faculty, graduate student and undergraduate student abilities and accomplishments.</i> 2.7 Address administrative structural changes to facilitate strategy and enhance national visibility.

Notes: *Italicized levers are yet to be initiated.*

## Themes and Levers/Categories of Actions

### Missouri S&T's Strategy for Success 2013-2020

#### Themes

- 3 Achieve sustainable growth to ensure best return on investment

#### Levers/Categories of Actions

- 3.1 Evaluate current academic programs and create, modify, eliminate or combine in order to ensure a relevant portfolio that supports S&T's Carnegie classification as a national research university.
- 3.2 Centralize corporate relations to improve service to existing corporate partners and to identify and establish new partnerships for the purpose of increasing/enhancing research, economic development, credit and non-credit education, philanthropy, and the hiring of our graduates.
- 3.3 Improve facilities to enhance research and student learning, and expand experiential training.
- 3.4 Promote inclusion and increase diversity of faculty, staff and students to remain relevant and competitive in a global environment.
- 3.5 Create and implement a student and alumni lifetime engagement strategy.
- 3.6 *Devise convenient technology-based methods of accessibility, communication and engagement with external constituents.*
- 3.7 *Market campus strengths and create a broad awareness of student opportunities and benefits to both domestic and international audiences.*
- 3.8 Exercise leadership in sustainability on campus and in the community by modeling sustainability practices in daily operations and practicing environmental stewardship.
- 3.9 Conduct a comprehensive fundraising campaign to secure private support for identified campus priorities.

*Notes: Italicized levers are yet to be initiated.*

# Themes and Levers/Categories of Actions

**Missouri S&T's  
Strategy for  
Success  
2013-2020**

Themes	Levers/Categories of Actions
4 Increase and facilitate meaningful access to and interaction with renowned faculty, staff and services.	4.1 Create a comprehensive distance and online education strategy. 4.2 Enhance instructional labs and methods of developing lab experiences. 4.3 <i>Enhance innovative use of technologies to improve and facilitate access.</i> 4.4 <i>Ensure renowned faculty teach/interact with undergraduate students.</i> 4.5 Engage in transformative doctoral student recruiting/retention and placement. 4.6 <i>Improve student, faculty and staff mentoring and advising.</i> 4.7 <i>Identify and remove barriers to graduation and reduce time to degree for undergraduate and graduate students.</i> 4.8 <i>Expand access to renowned faculty through enhanced recruiting and retention.</i> 4.9 <i>Promote non-traditional activities outside of classroom.</i>

*Notes: Italicized levers are yet to be initiated.*



## Implementation Plan/Actions and Metrics

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### Theme 1<sup>1</sup>

#### Develop and inspire creative thinkers and leaders for life-long success

##### Metric

Number of academic programs and administrative departments that expect participation in sponsored or recognized opportunities that encourage creative thinking, innovation, entrepreneurship or leadership development by its students, faculty and staff.

##### Baseline

Current number of academic programs that require undergraduate student participation in substantial experiential opportunities (*as defined in Action 1.1.1*).

##### Target 2020

- a. Each academic program requires 100% undergraduate student participation in some significant experiential learning activity and encourages graduate student participation.
- b. Each department (academic and administrative) has an established plan for faculty and staff participation either as learners or advocates in developing creative thinkers and leaders.

<sup>1</sup> Only Theme 1 actions initiated in the first year are shown in this section.

## Implementation Plan | Portfolio Management of Actions

**Lever 1.1:** Require all undergraduate students to participate in some significant experiential learning activity before graduation

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
1.1.1 Create a defining comprehensive list of activities that are supported by research as significant experiential activities	Aug. 1, 2013	10 months	Personnel time				Vice Provost for Undergraduate Studies, Vice Chancellor for Student Affairs	Approval of comprehensive list by Provost
1.1.2 Incorporate experiential/service learning into the core curriculum in all degree programs at any level beginning in the freshman year	July 1, 2014	18 months	Personnel time				Vice Provost for Undergraduate Studies, Academic Deans	Percent of revised undergraduate programs approved
1.1.2 b. Draft a statement describing degree requirements	July 2014	6 months	Personnel time				Vice Provost for Undergraduate Studies, Vice Chancellor for Student Affairs	Successful completion of the document
1.1.2 c. Department approval detailing ways students will be able to complete requirement	July 2014	6 months	Personnel time				Vice Provost for Undergraduate Studies, Vice Chancellor for Student Affairs	Department approval
1.1.2 d. Approval by degree-specific curriculum committees	July 2014	6 months	Personnel time				Vice Provost for Undergraduate Studies, Vice Chancellor for Student Affairs	The number of degree programs with approved activities

## Implementation Plan | Portfolio Management of Actions

**Lever 1.1:** Require all undergraduate students to participate in some significant experiential learning activity before graduation

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
1.1.2 e. Faculty Senate approval	July 2014	6 months	Personnel time				Vice Provost for Undergraduate Studies, Vice Chancellor for Student Affairs	Senate approval
1.1.5 The Director of Career Opportunities and Employer Relations will continue to explore internship and externship opportunities in the summer and inter-sessions as well as during semesters	Jan. 1, 2014	Ongoing	Personnel time				Vice Provost for Undergraduate Studies, Vice Chancellor for Student Affairs	List of opportunities

## Implementation Plan | Overview of Metrics

**Lever 1.1:** Require all undergraduate students to participate in some significant experiential learning activity before graduation

Metrics for Levers	Actions	Metric	Baseline	Targets
<p>By year 5 ensure that all undergraduate degree programs require a significant experiential learning activity</p> <p><b>Metric:</b> Compliance by all departments</p> <p><b>Baseline:</b> No departments</p> <p><b>Second-Year Target:</b> Faculty Senate approval of degree program requirements</p> <p><b>Fifth-Year Target:</b> All undergraduate degree programs requiring experiential learning</p>	<p><b>1.1.1:</b> Create a defining comprehensive list of activities that are supported by research as significant experiential activities</p>	Approval of comprehensive list by Provost	No list exists	<b>Year 1:</b> Gaining Provost approval
	<p><b>1.1.2:</b> Incorporate experiential/service learning into the core curriculum in all degree programs at any level beginning in the freshman year</p>	Degree requirements	No formal requirement for any degree program	<b>Year 1:</b> Curriculum Committee approval
	<p><b>1.1.5:</b> Consult with the Director of Career Opportunities and Employer Relations to explore internship and externship opportunities in the summer and inter-sessions as well as during semesters</p>	Develop list of opportunities		<p><b>Year 1:</b> Develop list</p> <p><b>Year 2:</b> Review and revise list of opportunities annually</p>

## Implementation Plan | Portfolio Management of Actions

**Lever 1.2:** Foster innovation and creativity for faculty, staff, students and administration

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefit	Owner(s)	Key Metric to Track
1.2.1 Create and promote an innovation team that solicits and considers creative suggestions from the S&T family. Empower owners for implementation. Create a small fund to implement several each year.	July 1, 2013	7 years	Innovation Fund		\$75,000		Chancellor, Strategic Planning Progress Manager	Success rate in reaching funded project metrics
1.2.3 Devise a plan for TedX-like series for students, faculty and staff (e.g., experiential learning activities, professional development)	July 1, 2014	2 years	Vice Provost for Undergraduate Studies and Human Resource Services time for data collection on usage	\$2,500	\$5,000		Vice Provost for Undergraduate Studies, Vice Provost for Graduate Studies, Human Resource Services, Academic Deans	Plan and implementation
1.2.5 Identify a series of co-curricular events (e.g., intersession or alternative spring break events) for interdisciplinary groups of students, faculty and/or staff focused on providing solutions for problem-solving, innovation or leadership.	Sept. 1, 2013	2 years	Faculty, staff and student time; faculty, staff and student funding to participate, when required; necessary facilities, as needed. Personnel time			Faculty and staff time; financial incentives for faculty to offer a course or activity (e.g., cover travel costs)	Vice Provost for Undergraduate Studies, Vice Provost for Graduate Studies, Vice Chancellor for Student Affairs, Academic Deans	Co-curricular events

## Implementation Plan | Portfolio Management of Actions

**Lever 1.2:** Foster innovation and creativity for faculty, staff, students and administration

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Owner(s)	Key Metric to Track
1.2.6 Develop minor and certificate programs in leadership, entrepreneurship, humanitarian engineering and science, and creativity	Sept. 1, 2013	2 years	Personnel time			Vice Provost for Undergraduate Studies, Vice Provost for Graduate Studies, Vice Chancellor for Student Affairs, Academic Deans	Programs developed
1.2.8 Identify ways in which graduate students' research can be transformed into entrepreneurial application	July 1, 2014	2 years	Personnel time	Space	Funds to support activities	Vice Provost for Research, Vice Provost for Graduate Studies	Report recommending opportunities
1.2.10 Identify, develop and implement professional development plans to enhance leadership, creativity, and innovation for the staff in each department or unit (See Action 2.4.4)	Oct. 1, 2013	5 years	Department / unit supervisor support; personnel time		\$20,000 Year 2 and beyond	Human Resource Services	Develop department and unit plans

## Implementation Plan | Portfolio Management of Actions

**Lever 1.2:** Foster innovation and creativity for faculty, staff, students and administration

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefit	Owner(s)	Key Metric to Track
1.2.12 Develop and implement professional development and leadership plans for students to enhance creativity and innovation	July 2014	2 years	Personnel time				Vice Chancellor for Student Affairs	Number of plans developed
1.2.13 Identify, develop and implement developmental experiences designed to enhance students interpersonal, communication and leadership skills	July 2014	2 years	Personnel time				Vice Chancellor for Student Affairs, Vice Provost for Undergraduate Studies, Vice Provost and Dean for Enrollment Management	Experiences developed
1.2.14 Provide a multi-dimensional model of wellness that promotes whole-person concept and encourages personal development and lifelong health	July 2014	2 years	Personnel time				Vice Chancellor for Student Affairs, Associate Vice Chancellor of HRSAAID	Models developed

## Implementation Plan | Overview of Metrics

**Lever 1.2:** Foster innovation and creativity for faculty, staff, students and administration

Metrics for Levers	Actions	Metric	Baseline	Targets
Innovation projects implemented	1.2.1: Create and promote an innovation team that solicits and considers creative suggestions from the S&T family. Empower owners for implementation. Create a small fund to implement several each year.	Success rate in reaching funded project metrics	No team or funds exist	<p><b>Year 1:</b> Create team, guidelines and plans for dissemination.</p> <p><b>Year 2:</b> Achieve 80% success rate in reaching funded project metrics.</p>
	1.2.2: Explore creating a Learning Commons with state-of-the-art collaborative technology, practice presentation rooms, experimental technology lab with video editing and 3D printing capability for teaching, learning and research. Training on how to effectively use the commons would be included. (See Lever 3.9)	Decision on implementing Learning Commons Facility		<p>Develop list of learning commons needs</p> <p>Develop recommendations for collaborative technology and training needs</p> <p>Review and revise list of opportunities annually</p>



## Implementation Plan | Overview of Metrics

**Lever 1.2:** Foster innovation and creativity for faculty, staff, students and administration

Metrics for Levers	Actions	Metric	Baseline	Targets
Innovation projects implemented	1.2.3: Devise a plan for TedX-like series for students, faculty and staff (e.g., experiential learning activities, professional development)	Develop a plan for implementing TedX and evaluate	Percent usage in learning activities	<p><b>Year 1:</b> Develop a plan for implementing TedX and evaluate</p> <p><b>Year 2:</b> Implement plan</p>
	1.2.5: Identify a series of co-curricular events (e.g., intersession or alternative spring break events) for interdisciplinary groups of students, faculty and/or staff focused on providing solutions for problem-solving, innovation or leadership	Identify and schedule co-curricular events	Historical	<p><b>Year 1:</b> Number of faculty, staff, and students involved in key events</p> <p><b>Year 2:</b> Percent increase in number of faculty, staff, or students involved in key events</p>
	1.2.6: Develop minor and certificate programs in leadership, entrepreneurship, humanitarian engineering and science, and creativity.	Programs developed	Calendar Year 2012	<p><b>Year 1:</b> Calendar Year 2012 +1 program added</p> <p><b>Year 2:</b> Add 1 more program</p>

## Implementation Plan | Overview of Metrics

**Lever 1.2:** Foster innovation and creativity for faculty, staff, students and administration

Metrics for Levers	Actions	Metric	Baseline	Targets
Innovation projects implemented	1.2.8: Identify ways in which graduate students' research can be transformed into entrepreneurial application	Report of opportunities	Historical	<b>Year 1:</b> Report recommendations and opportunities  <b>Year 2:</b> Implement
	1.2.10: Identify, develop and implement professional development plans to enhance leadership, creativity and innovation for the staff in each department or unit	Professional development plans	Historical	<b>Year 1:</b> Identify needs and resources  <b>Year 2:</b> Develop plans  <b>Year 5:</b> Implement plans
	1.2.12: Develop and implement professional development and leadership plans for students to enhance creativity and innovation	Number of plans developed		
	1.2.13: Identify, develop and implement developmental experiences designed to enhance students interpersonal, communication and leadership skills	Experiences developed		
	1.2.14: Provide a multi-dimensional model of wellness that promotes whole-person concept and encourages personal development and lifelong health	Models developed		

## Implementation Plan | Portfolio Management of Actions

**Lever 1.3:** Establish database of measures to define student access to faculty and staff

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
1.3.1: Define meaningful interaction with students	July 1, 2014	6 months	Personnel time				Vice Provost for Undergraduate Studies and Vice Provost for Graduate Studies, Vice Chancellor for Student Affairs, Department Chairs, Institutional Research, Academic Deans	Benchmarking metrics of meaningful student interaction
1.3.2: Obtain data on number of faculty and other parameters	Jan. 1, 2015	6 months	Personnel time				Institutional Research	Benchmark ratios to national standards and comparator universities
1.3.3: Obtain data on number of professional/exempt staff and other parameters	Jan. 1, 2015	6 months	Personnel time				Institutional Research	Benchmark ratios to national standards and comparator universities

## Implementation Plan | Overview of Metrics

**Lever 1.3:** Establish database of measures to define student access to faculty and staff

Metrics for Levers	Actions	Metric	Baseline	Targets
Recommendation on metrics to define student-faculty interaction	1.3.1: Define meaningful interaction with students	Benchmarking metrics of meaningful student interaction	Current organizational structure	<b>6-month Target:</b> Submittal of recommendation
	1.3.2: Obtain data on number of faculty and other parameters	Data on number of faculty and other parameters defined in 1.3.1		<b>Year 1:</b> Obtain appropriate data for S&T and comparator institutions
	1.3.3: Obtain data on number of professional/exempt staff and other parameters	Data on number of professional/exempt staff and other parameters defined in 1.3.1		<b>Year 1:</b> Obtain appropriate data for S&T and comparator institutions

## Implementation Plan/Actions and Metrics

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### Theme 2<sup>1</sup>

#### Enhance reputation and raise visibility

##### Metric 1

Percentage of General Operating Revenue dedicated to institutional marketing and visibility efforts comparable to best-in-class universities (**Baseline:** 0; **Target 2020:** 1%)

##### Metric 2

Increase the number of additional faculty members through strategic hiring to leverage S&T as Missouri's technological research university (**Baseline:** 0; **Target 2020:** 100)

<sup>1</sup> Only Theme 2 actions initiated in the first year are shown in this section.

## Implementation Plan | Portfolio Management of Actions

**Lever 2.1:** Employ transformative and focused faculty hiring and retention, including cluster hires in select areas of expertise to support best in class (BIC) achievements

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
2.1.1: Initiate discussion on another two BIC areas	July 1, 2014	1 year	Personnel time				Provost, Vice Provost for Research, Chancellor	Detailed description of BIC areas for investment
2.1.2: Develop and implement a process to transparently allocate all faculty positions to impact strategic plan and progress on unit performance measures (related to Action 2.3.1 and used in Action 2.2.4)	July 1, 2013	7 years	Personnel time				Provost, Chancellor, Academic Deans	Number of open and new faculty positions allocated to impact strategic plan and progress on unit performance measures
2.1.3: Develop and implement a process to allocate faculty raises aligned with the strategic plan to address retention and reward high productivity	July 1, 2014	6 years	Personnel time				Provost, Chancellor	GRA allocated faculty raises for retention/ productivity
2.1.4: Identify and pursue companies, foundations and individual donors for charitable gifts to hire two national academy stature faculty in endowed chair positions in strategic areas #1 and #2	July 1, 2013	7 years	Personnel time				Vice Chancellor for University Advancement, Vice Provost for Research	Number of national academy stature faculty hired

## Implementation Plan | Portfolio Management of Actions

**Lever 2.1:** Employ transformative and focused faculty hiring and retention, including cluster hires in select areas of expertise to support best in class (BIC) achievements

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
2.1.6: Identify and pursue companies, foundations and individual donors to fund startup packages	July 1, 2013	1 year	Personnel time				Vice Chancellor for University Advancement, Department Chairs, Academic Deans	Report on potential funding for startup packages
2.1.7: Finalize third and fourth BIC areas for investment beginning in year 2	<i>See Action 2.1.1</i>		Personnel time				Provost, Vice Provost for Research, Chancellor	
2.1.8: Identify and pursue companies, foundations and individual donors for charitable gifts to hire two national academy stature faculty in endowed chair positions in strategic areas #3 and #4	July 1, 2014	6 years	Personnel time				Vice Chancellor for University Advancement, Vice Provost for Research	Number of national academy stature faculty hired

## Implementation Plan | Overview of Metrics

**Lever 2.1:** Employ transformative and focused faculty hiring and retention, including cluster hires in select areas of expertise to support best in class (BIC) achievements

Metrics for Levers	Actions	Metric	Baseline	Targets
Number of Phase 2 strategic faculty hires  <b>Baseline:</b> 0  <b>Year 1 Target:</b> 0  <b>Year 7 Target:</b> 20 new	2.1.1 and 2.1.7: Identify two BIC areas for investment	Detailed description of BIC areas for investment	None	<b>Year 1:</b> Detailed description of four BIC areas for investment
	2.1.2: Develop and implement a process to transparently allocate all faculty positions to impact strategic plan and progress on unit performance measures ( <i>related to Action 2.3.1 and used in Action 2.2.4</i> )	Number of open and new faculty positions allocated to impact strategic plan and progress on unit performance measures	0	<b>Year 1:</b> 0  <b>Year 7:</b> All open and new positions filled strategically
	2.1.3: Develop and implement a process to allocate faculty raises aligned with the strategic plan to address retention and reward high productivity	GRA allocated faculty raises for retention/ productivity	No common process	<b>Year 1:</b> Merit pool + additional pool for high productivity  <b>Year 5:</b> Sustainable raise pool to address retention and high productivity ( <i>See Lever 2.3</i> )
	2.1.4: Identify and pursue companies, foundations and individual donors for charitable gifts to hire two national academy stature faculty in endowed chair positions in strategic areas #1 and #2	Number of national academy stature faculty hired	0	<b>Year 3:</b> 1  <b>Year 4:</b> 2 ( <i>See Lever 3.9</i> )  <b>Year 5:</b> 1 ( <i>See Lever 3.9</i> )



## Implementation Plan | Overview of Metrics

**Lever 2.1:** Employ transformative and focused faculty hiring and retention, including cluster hires in select areas of expertise to support best in class (BIC) achievements

Metrics for Levers	Actions	Metric	Baseline	Targets
Number of Phase 2 strategic faculty hires  <b>Baseline:</b> 0  <b>Year 1 Target:</b> 0  <b>Year 7 Target:</b> 20 new	2.1.6: Identify and pursue companies, foundations and individual donors to fund startup packages	Report on potential funding for startup packages	0	<b>Year 1:</b> Report completed (See Lever 3.9)
	2.1.7: Finalize third and fourth BIC areas investment beginning in year 2 (See Action 2.1.1)			
	2.1.8: Identify and pursue companies, foundations and individual donors for charitable gifts to hire two national academy stature faculty in endowed chair positions in strategic areas #3 and #4	Number of national academy stature faculty hired	0	<b>Year 4:</b> 1  <b>Year 7:</b> 2 (See Lever 3.9)

## Implementation Plan | Portfolio Management of Actions

**Lever 2.2:** Leverage S&T as Missouri's technological research university

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
2.2.1: Increase S&T's undergraduate enrollment by 500 by 2020	July 1, 2013	7 years	Personnel time				Vice Provost and Dean of Enrollment Management	Undergraduate enrollments
2.2.2: Increase S&T's Ph.D. enrollment by 200-400 by 2020	July 1, 2013	7 years	Personnel time				Vice Provost of Graduate Studies	Number of PhD's
2.2.3: Increase the number of T/TT (NTT) faculty members by 67 (33) (12 T/TT faculty in conjunction with Lever 2.1 focused areas in Phase 1 hiring)	July 1, 2013	7 years	Fund in three phases	Phase 1: \$1,000,000	Phase 1: \$4,220,000		Provost, Vice Provost for Research, Department Chairs, Academic Deans	Number of T/TT and NTT faculty
2.2.4: Transparently allocate as defined in Action 2.1.2 all open and new faculty positions to impact strategic plan and progress on unit performance measures	July 1, 2013	7 years	Personnel time		Phase 1: \$3,000,000 (estimated 25 open lines in years 1 and 2)		Provost, Chancellor, Academic Deans	Number of positions filled in line with strategic plan and progress on unit performance measures
2.2.5: Increase the number of technical/specialized staff members to support strategic program activities	July 2013	7 years	Personnel time		Phase 1: \$70,000		Academic Deans, Associate Vice Chancellor of HRSAADI	Number of full-time tech and specialized staff members

## Implementation Plan | Portfolio Management of Actions

**Lever 2.2:** Leverage S&T as Missouri's technological research university

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
2.2.6: S&T will develop specific agreements with UM campuses and possibly other academic institutions to collaborate in delivering courses and degrees that enhance the current portfolios on each campus	Sept. 1, 2014	5 years	Personnel time				Provost	Agreements between campuses - Year 1 target is one new agreement

## Implementation Plan | Overview of Metrics

**Lever 2.2:** Leverage S&T as Missouri's technological research university

Metrics for Levers	Actions	Metric	Baseline	Targets
<p><b>Metric:</b> Undergraduate enrollment; graduate enrollment; new signed agreements</p> <p><b>Baseline:</b> Fall 2012; no new agreements</p> <p><b>Year 1 target:</b> 90, 19; 1 agreements</p> <p><b>Year 7 target:</b> 500; 200-400; 3 agreements</p>	2.2.1: Increase S&T's undergraduate enrollment by 500 by 2020	Undergraduate enrollment numbers	AY12/13 enrollment numbers	<p><b>Year 1:</b> Increase UG enrollment by 90</p> <p><b>Year 7:</b> Increase UG enrollment by 500</p>
	2.2.2: Increase S&T's Ph.D. enrollment by 200-400 by 2020	Number of PhD students	AY12/13 enrollment numbers	<p><b>Year 1:</b> Increase the number of PhD students by 19</p> <p><b>Year 7:</b> Increase the number of PhD students by 200-400</p>
	2.2.3: Increase the number of T/TT (NTT) faculty members by 67 (33) (12 T/TT faculty hired in Phase 1 in conjunction with Lever 2.1)	Number of T/TT and NTT faculty	Number of AY12/13 faculty	<p><b>Year 1:</b> Increase by 16 by Year 1 (and another 17 by Year 2 in Phase 1)</p> <p><b>Year 7:</b> Increase by 100</p>
	2.2.4: Transparently allocate as defined in Action 2.1.2 all open and new faculty positions to impact strategic plan and progress on unit performance measures	Number of positions filled in line with strategic plan and progress on unit performance measures	0	<p><b>Year 1:</b> Increase by 16 new by Year 1 (and another 17 new by Year 2 in Phase 1); Fill 25 open positions strategically</p> <p><b>Year 7:</b> All open and new positions filled strategically</p>

## Implementation Plan | Overview of Metrics

**Lever 2.2:** Leverage S&T as Missouri's technological research university

Metrics for Levers	Actions	Metric	Baseline	Targets
<b>Metric:</b> Undergraduate enrollment; graduate enrollment; new signed agreements  <b>Baseline:</b> Fall 2012; no new agreements  <b>Year 1 target:</b> 90, 19; 1 agreements  <b>Year 7 target:</b> 500; 200-400; 3 agreements	<b>2.2.5:</b> Increase the number of technical/specialized staff members to support strategic activities	Number of technical/specialized staff on campus	Number of AY12/13 technical/specialized staff	<b>Year 1:</b> Increase  <b>Year 7:</b> Increase
	<b>2.2.6:</b> S&T will develop specific agreements with UM campuses and possibly other academic institutions to collaborate in delivering courses and degrees that enhance the current portfolios on each campus	Number of agreements	No agreements	<b>Year 1:</b> 1  <b>Year 7:</b> 3

## Implementation Plan | Portfolio Management of Actions

**Lever 2.3:** Develop a culture of excellence in research, scholarship and creative activity among faculty, staff and students

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
2.3.1 Develop and implement performance-based resource allocation models commensurate with degree offerings, including productivity in research, scholarship and creative works (See Actions 1.3.1 and 3.1.1)	July 1, 2013	2 years	Personnel time				Provost, Academic Deans	Inter-department general revenue appropriations distribution models
2.3.2 Identify and take actions to improve the metrics that contribute to increasing the national ranking of five graduate programs (See Action 3.1.2)	July 1, 2014	5 years	Personnel time				Provost, Vice Provost for Graduate Studies, Department Chairs, Academic Deans	Select five departments and measures used in graduate rankings
2.3.3 Be selected to lead a National Science Foundation Engineering Research Center-type center	July 1, 2014	5 years	Personnel time				Vice Provost for Research	Number of NSF ERC-type centers
2.3.4 Continue establishing new sustainable industry-funded research consortia	July 1, 2013	Ongoing	Personnel time	\$140,000 (as determined)			Vice Provost for Research	Number of new industry-funded research consortia
2.3.5 Establish programs and facilities to host visiting world-class faculty	July 1, 2014	5 years	Personnel time				Provost, Academic Deans	Number of world-class faculty hosted
2.3.8 Expand research and entrepreneurial opportunities for undergraduate students, including the Opportunities for Undergraduate Research Experiences program	July 1, 2014	4 years	Personnel time				Vice Provost for Undergraduate Studies, Academic Deans	Number of UG students enrolled in course 390 and/or supported by external research funding

## Implementation Plan | Portfolio Management of Actions

**Lever 2.3:** Develop a culture of excellence in research, scholarship and creative activity among faculty, staff and students

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
2.3.9: Balance teaching and research relative to comparator institutions by enforcing workload policy	July 1, 2014	2 years	Personnel time				Department Chair Council, Provost, Academic Deans	Number of departments with workload policy in place
2.3.10: Develop and implement a new program to instill a culture of excellence in research, scholarship and creative works in early career faculty	July 1, 2014	2 years	Personnel time				Department Chairs, Academic Deans	Improvement in annual department defined research, scholarship and creative activity metrics
2.3.11: Develop and implement a new program to instill a culture of excellence in research, scholarship and creative works in doctoral students	July 1, 2015	2 years	Personnel time				Vice Provost for Graduate Studies, Department Chairs, Academic Deans	Improvement in annual department defined research, scholarship and creative activity metrics
2.3.12: Develop and implement a cost share program to support students to attend national conferences to present their research results	July 1, 2014	2 years	Personnel time				Academic Deans	Development of program

## Implementation Plan | Overview of Metrics

**Lever 2.3:** Develop a culture of excellence in research, scholarship and creative activity among faculty, staff and students

Metrics for Levers	Actions	Metric	Baseline	Targets
<p><b>Metric:</b> Improvement in annual department-defined research, scholarship and creative activity metrics</p> <p><b>Baseline:</b> Calendar Year 2012 (\$28.5 million research expenditures; 14 citations per tenure/tenure track faculty)</p> <p><b>Year 1 Target:</b> \$29M research expenditures; 15 citations per tenure/tenure track faculty</p> <p><b>Year 7 Target:</b> \$40M research expenditures; 20 citations per tenure/tenure track faculty</p>	<p><b>2.3.1:</b> Develop and implement performance-based resource allocation models commensurate with degree offerings, including productivity in research, scholarship and creative works</p>	Inter-department general revenue appropriation distribution models	Historical	<p><b>Year 1:</b> Department performance-based resource allocation model</p> <p><b>Year 5:</b> Distribution model implemented</p>
	<p><b>2.3.2:</b> Identify and take actions to improve the metrics that contribute to increasing the national ranking of five graduate programs</p>	Select five departments and measures used in graduate rankings	Latest values of measures	<p><b>Year 1:</b> Metrics identified and department-specific actions identified</p> <p><b>Year 5:</b> Improvement in measures equivalent to schools in next tier</p>
	<p><b>2.3.3:</b> Be selected to lead a National Science Foundation Engineering Research Center-type center</p>	Number of S&T NSF ERC type centers	0	<p><b>Year 1:</b> At least one proposal submitted</p> <p><b>Year 5:</b> 1</p>
	<p><b>2.3.4:</b> Continue establishing new sustainable industry-funded research consortia</p>	Number of industry consortia	5	<p><b>Year 1:</b> 1 new</p> <p><b>Year 5:</b> 2 new</p>
	<p><b>2.3.5:</b> Establish programs and facilities to host visiting world-class faculty</p>	Number of world-class faculty hosted	Calendar Year 2012	<p><b>Year 1:</b> Calendar Year 2012 +5</p> <p><b>Year 5:</b> 2x Calendar Year 2012</p>



## Implementation Plan | Overview of Metrics

**Lever 2.3:** Develop a culture of excellence in research, scholarship and creative activity among faculty, staff and students

Metrics for Levers	Actions	Metric	Baseline	Targets
<p><b>Metric:</b> Improvement in annual department-defined research, scholarship and creative activity metrics</p> <p><b>Baseline:</b> Calendar Year 2012 (\$28.5 million research expenditures; 14 citations per tenure/tenure track faculty)</p> <p><b>Year 1 Target:</b> \$29M research expenditures; 15 citations per tenure/tenure track faculty</p> <p><b>Year 7 Target:</b> \$40M research expenditures; 20 citations per tenure/tenure track faculty</p>	2.3.8: Expand research and entrepreneurial opportunities for undergraduate students, including the Opportunities for Undergraduate Research Experiences program	Number of undergraduate students involved in course 390 and/or supported by external research funding	Calendar Year 2012	<p><b>Year 2:</b> 10% increase to Calendar Year 2012</p> <p><b>Year 5:</b> 50% increase to Calendar Year 2012</p>
	2.3.9: Balance teaching and research relative to comparator institutions by enforcing workload policy	Number of departments with workload policy in place	Calendar Year 2012	<b>Year 1:</b> All academic departments
	2.3.10: Develop and implement a new program to instill a culture of excellence in research, scholarship and creative works in early career faculty	Improvement in annual department defined research, scholarship and creative activity metrics	Departmental Calendar Year 2012	<p><b>Year 1:</b> Develop new program</p> <p><b>Year 2:</b> Implemented</p>
	2.3.11: Develop and implement a new program to instill a culture of excellence in research, scholarship and creative works in doctoral students	Improvement in annual department-defined research, scholarship and creative activity metrics	Departmental Calendar Year 2012	<p><b>Year 1:</b> Develop new program</p> <p><b>Year 2:</b> Implemented</p>
	2.3.12: Develop and implement a cost share program to support students to attend national conferences to present their research results	Development of the program	None exists currently	<b>Year 1:</b> Develop new program

## Implementation Plan | Portfolio Management of Actions

**Lever 2.4:** Create and implement a communication and marketing plan to raise the visibility of the campus and convey our return on investment

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
2.4.1: Marketing Leadership Team guides development of an integrated, campuswide communications and marketing plan	July 1, 2013	Ongoing	Dedicated staff time from Communications. Personnel time			Institutional support of marketing for key revenue streams (enrollment, fundraising, research)	Director of Communications	Organizational structure established, regular participation by campus leadership
2.4.2: Core Marketing Network provides consultation to the Marketing Leadership Team to establish an integrated, campuswide communications and marketing plan	July 1, 2013	Ongoing	Dedicated staff time from Communications. Personnel time			Institutional support of marketing for key revenue streams (enrollment, fundraising, research)	Assistant Director of Communications	Organizational structure established
2.4.4: The Marketing Leadership Team, in consultation with the Core Marketing Network, shall identify marketing staff who will be responsible for implementing the plan and shall create a professional development plan to help ensure those staff are trained to carry out their responsibilities (See Action 1.2.10)	July 2013 to February 2014	5 years	Staff time from Communications and Core Marketing Network. Personnel time			Institutional support of marketing for key revenue streams (enrollment, fundraising, research)	Director of Communications	Training needs identified and prioritized; professional development budget identified; professional development budget secured (recurring)

## Implementation Plan | Portfolio Management of Actions

**Lever 2.4:** Create and implement a communication and marketing plan to raise the visibility of the campus and convey our return on investment

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
2.4.5: Fully commit to the Missouri S&T brand by removing references to “formerly the University of Missouri-Rolla” in all marketing materials targeting the key customer groups	July 2013 to June 2014	2 years	Will require enforcement through communications department, printing and mail services, IT, and others, and therefore tradeoffs in terms of workload			Institutional support of marketing for key revenue streams (enrollment, fundraising, research)	Marketing Leadership Team, Core Marketing Network	Proposal approved by Marketing Leadership Team, Campus Leadership
2.4.7: Seek matching commitments to fund a portion of campuswide communications and marketing efforts	July 2014	2 years	Personnel time			Additional private support dedicated to marketing	Assistant Vice Chancellor for University Advancement	Funding secured
2.4.8: Require all communications and marketing materials (print, web, video, etc.) to be reviewed by a central marketing team to ensure consistency of messaging, appearance and tone	January 2014 to June 2014	5 years	1 new full-time position in Communications Department; funding for 2 student assistant positions within Communications Department		\$70,000 (\$60,000 for position; \$10,000 for 2 student assistants)	Institutional support of marketing for key revenue streams (enrollment, fundraising, research)	Director of Communications	Proposal approved; funding secured

## Implementation Plan | Portfolio Management of Actions

**Lever 2.4:** Create and implement a communication and marketing plan to raise the visibility of the campus and convey our return on investment

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
2.4.9: Obtain commitment from campus leadership to create a recurring budget for campuswide marketing	July 2013 to October 2013	7 years	Dedicated staffing from Communications. Personnel time		\$500,000/year target	Institutional support of marketing for key revenue streams (enrollment, fundraising, research)	Director of Communications	Proposal approval; level of funding
2.4.11: Centralize all communications and marketing operations	July 2014	5 years	(See Action 2.4.8)	(See Action 2.4.8)		Institutional support of marketing for key revenue streams (enrollment, fundraising, research)	Director of Communications	Proposal to centralize approved; structure implemented; funding secured

## Implementation Plan | Overview of Metrics

**Lever 2.4:** Create and implement a communication and marketing plan to raise the visibility of the campus and convey our return on investment

Metrics for Levers	Actions	Metric	Baseline	Targets
<p><b>Metric:</b></p> <p>1. Creation of integrated, campuswide marketing plan targeting key customer groups and focusing on national reputation in terms of return on investment</p> <p>2. Improvement in levels of visibility and awareness among key customer groups in terms of Missouri S&amp;T's value and return on investment</p> <p><b>Baseline:</b> Data from customer groups and third-party sources such as national ranking publications</p> <p><b>Year 1 Target:</b> Based on baseline data</p> <p><b>Year 5 Target:</b> Based on baseline data and goals of marketing plan</p>	<p><b>2.4.1</b> Marketing Leadership Team guides development of an integrated, campuswide communications and marketing plan</p>	Organizational structure established, regular participation by campus leadership		<p><b>Year 1:</b> Team completes Actions 2.4.3, 2.4.9, 2.4.10, 2.4.4 (below); Team endorses Actions 2.4.9, 2.4.8, 2.4.11, 2.4.5, 2.4.7 (below)</p>
	<p><b>2.4.2</b> Core Marketing Network provides consultation to the Marketing Leadership Team to establish an integrated, campuswide communications and marketing plan</p>	Organizational structure established		<p><b>Year 1:</b> Network coordinates with Marketing Leadership Team to complete Actions 2.4.3, 2.4.10, 2.4.4 (below); Team endorses Actions 2.4.9, 2.4.8, 2.4.11, 2.4.5, 2.4.7 (below)</p>
	<p><b>2.4.4</b> Identify marketing staff who will be responsible for implementing the plan and shall create a professional development plan to help ensure those staff are trained to carry out their responsibilities</p>	Staff identified; training needs identified		<p><b>Year 1:</b> Professional development plan created</p> <p><b>Year 2:</b> Professional development/training implemented</p>
	<p><b>2.4.5</b> Remove references to “formerly the University of Missouri-Rolla” in all marketing materials targeting the key customer groups</p>	Progress toward eliminating “formerly the University of Missouri-Rolla”	Inconsistent references to “formerly...” in marketing materials, depending on customer group	<p><b>Year 1:</b> Communications audit to identify issues in marketing materials</p> <p><b>Year 2:</b> Removal of “formerly...” from all marketing materials</p>
	<p><b>2.4.7</b> Seek matching commitments to fund a portion of campuswide communications and marketing efforts</p>	Proposal delivered to appropriate groups for funding support (perhaps for one-time cost such as consulting firm)		<p><b>Year 1:</b> Secure one-time or other funding</p>

## Implementation Plan | Overview of Metrics

**Lever 2.4:** Create and implement a communication and marketing plan to raise the visibility of the campus and convey our return on investment

Metrics for Levers	Actions	Metric	Baseline	Targets
<p><b>Metric:</b></p> <ol style="list-style-type: none"> <li>1. Creation of integrated, campuswide marketing plan targeting key customer groups and focusing on national reputation in terms of return on investment</li> <li>2. Improvement in levels of visibility and awareness among key customer groups in terms of Missouri S&amp;T's value and return on investment</li> </ol> <p><b>Baseline:</b> Data from customer groups and third-party sources such as national ranking publications</p> <p><b>Year 1 Target:</b> Based on baseline data</p> <p><b>Year 5 Target:</b> Based on baseline data and goals of marketing plan</p>	<p><b>2.4.8:</b> Require all communications and marketing materials (print, web, video, etc.) to be reviewed by a central marketing team to ensure consistency of messaging, appearance and tone</p>	<p>Review process developed and staffing needs identified; communications audit</p>	<p>Historical, decentralized process</p>	<p><b>Year 1:</b> Develop process, staffing needs; begin process</p> <p><b>Year 2:</b> Communications audit</p>
	<p><b>2.4.9:</b> Obtain commitment from campus leadership to create a recurring budget for campuswide marketing</p>	<p>Commitment secured</p>	<p>\$0</p>	<p><b>Year 2:</b> Recurring target: \$500,000 annually.</p>

## Implementation Plan | Overview of Metrics

**Lever 2.4:** Create and implement a communication and marketing plan to raise the visibility of the campus and convey our return on investment

Metrics for Levers	Actions	Metric	Baseline	First-Year Target
<p><b>Metric:</b></p> <ol style="list-style-type: none"> <li>Creation of integrated, campuswide marketing plan targeting key customer groups and focusing on national reputation in terms of return on investment</li> <li>Improvement in levels of visibility and awareness among key customer groups in terms of Missouri S&amp;T's value and return on investment</li> </ol> <p><b>Baseline:</b> Data from customer groups and third-party sources such as national ranking publications</p> <p><b>Year 1 Target:</b> Based on baseline data</p> <p><b>Year 5 Target:</b> Based on baseline data and goals of marketing plan</p>	<p><b>2.4.10.a:</b> Examine best-in-class institutions' practices and incorporate into Missouri S&amp;T marketing planning as applicable</p>	Marketing data gathered from institutions, including site visits		<p><b>Year 1:</b> Initial data gathered, presented to Marketing Leadership Team and Core Marketing Network</p>
	<p><b>2.4.11:</b> Centralize all communications and marketing operations</p>	Level of centralization	Historical, decentralized process	<p><b>Year 1:</b> Develop processes, policies for centralized marketing; processes and policies approved by campus leadership</p> <p><b>Year 2:</b> Implement centralized marketing campuswide</p>

## Implementation Plan | Portfolio Management of Actions

**Lever 2.5:** Modify our conventional methods of teaching to accommodate current, new and advanced technology that will enhance student learning and increase faculty productivity

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
2.5.2: Enhance resources for distance and blended learning, particularly with respect to the management and distribution of multimedia objects (Aid professors use in classroom instead of taking a field trip)	July 1, 2014	3 years					Academic Deans	Number of multimedia objects
2.5.3: Increase instructional design support and online facilitators for teaching faculty	July 1, 2013	2 years	IT/Education Technology Staff Time		\$93,000		Provost, Academic Deans	Increase number of successful students
2.5.6: Create and implement a stipend program to reward faculty who incorporate Blended Learning techniques into their courses	July 1, 2013	Ongoing	Faculty Time		\$105,000		Provost, Academic Deans	Increase in number of blended courses Increase in number of faculty involved
2.5.8: Redesign high-volume courses through integration of new technology and modified teaching methods to enhance student learning	July 2013	5 years					Academic Deans	Number of courses redesigned



## Implementation Plan | Overview of Metrics

**Lever 2.5:** Modify our conventional methods of teaching to accommodate current, new and advanced technology that will enhance student learning and increase faculty productivity

Metrics for Levers	Actions	Metrics	Baseline	Target
<b>Metric:</b> Increase in student success in redesigned courses  <b>Baseline:</b> AY 2012-2013  <b>Initial Target:</b> 7% increase in calculus success	2.5.2: Enhance resources for distance and blended learning, particularly with respect to the management and distribution of multimedia objects (Aid professors use in classroom instead of taking a field trip)	Number of multimedia objects		
	2.5.3: Increase instructional design support and online facilitators for teaching faculty	Increase number of successful students	None	<b>Year 1:</b> Initiate redesign of one calculus course
	2.5.6: Create and implement a stipend program to reward faculty who incorporate Blended Learning techniques into their courses	Increase in number of blended courses  Increase in number of faculty involved		<b>Year 1:</b> Faculty investment in calculus course redesign
	2.5.8: Redesign high-volume courses through integration of new technology and modified teaching methods to enhance student learning	Number of courses redesigned		

# Implementation Plan | Portfolio Management of Actions

**Lever 2.7:** Address administrative structural changes to facilitate strategy and enhance national visibility

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
2.7.1: Implement the organizational structure appropriate to strategic plan	July 1, 2013	1.5 years	Personnel time				Chancellor	Implement the organizational structure changes appropriate to strategic plan

# Implementation Plan | Overview of Metrics

**Lever 2.7:** Address administrative structural changes to facilitate strategy and enhance national visibility

Metrics for Levers	Actions	Metrics	Baseline	Target
Address administrative structural changes to facilitate strategy and enhance national visibility	2.7.1: Implement the organizational structure appropriate to strategic plan		Current organizational structure	New or revised organizational structure

## Implementation Plan/Actions and Metrics

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### Theme 3<sup>1</sup>

#### Achieve sustainable growth to ensure best return on investment

##### Metric 1

Undergraduate student enrollment (**Baseline:** 5,843; **Target 2020:** 6,343)

##### Metric 2

Graduate student enrollment (**Baseline:** 1,804; **Target 2020:** 2,004-2,204)

<sup>1</sup> Only Theme 3 actions initiated in the first year are shown in this section.

## Implementation Plan | Portfolio Management of Actions

**Lever 3.1:** Evaluate current academic programs and create, modify, eliminate or combine in order to ensure a relevant portfolio that supports a Carnegie ranking as a national, research university

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
3.1.1: Continue performing comparisons of academic department productivity to peer institutions (See Actions 2.3.1 and 1.3.1)	July 1, 2013	1 year	Personnel time				Provost, Department Chairs, Academic Deans	Academic departments complete comparison of productivity measures
3.1.2: Identify and take actions to improve the metrics that contribute to increasing the national ranking of all graduate programs (See Action 2.3.2)	July 1, 2014	5 years	Personnel time				Provost, Department Chairs, Academic Deans, Vice Provost of Graduate Studies	Select measures used in graduate rankings and acquire values and departmental specific metrics for improvement
3.1.3: Evaluate the need for new or elimination of existing degree programs	Oct. 1, 2013	1 year initial recommendations, ongoing	Personnel time				Provost, Academic Deans	Recommendations

## Implementation Plan | Overview of Metrics

**Lever 3.1:** Evaluate current academic programs and create, modify, eliminate or combine in order to ensure a relevant portfolio that supports a Carnegie ranking as a national, research university

Metrics for Levers	Actions	Metric	Baseline	Targets
<b>Metric:</b> Improvement in annual department defined research, scholarship and creative activity metrics  <b>Year 5 Target:</b> 10% increase in department-determined productivity measures	<b>3.1.1:</b> Continue performing comparisons of academic department productivity to peer institutions. (See Actions 2.3.1 and 1.3.1)	Department specific productivity measures		<b>Year 1:</b> All academic departments have defined productivity metrics and have performed comparison
	<b>3.1.2:</b> Identify and take actions to improve the metrics that contribute to increasing the national ranking of all graduate programs. (See Action 2.3.2)	Select measures used in graduate rankings, acquire values, and identify department specific actions for improvement	Latest values of measures	<b>Year 1:</b> Select measures used in graduate rankings, acquire values, and identify department specific actions for improvement
	<b>3.1.3:</b> Evaluate the need for new or elimination of existing degree programs	Recommendations		Recommendations ongoing

## Implementation Plan | Portfolio Management of Actions

**Lever 3.2:** Centralize corporate relations to improve service to existing partners and to identify and establish new partnerships for the purpose of increasing/enhancing research, economic development, credit and non-credit education, philanthropy, and the hiring of our graduates

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefit	Owner(s)	Key Metric to Track
3.2.1: Create a corporate relations office and determine the role it should play in assisting the various interests within the S&T community in establishing appropriate relationships with external constituents	July 1, 2014	1 year	Personnel time				Chancellor, Chancellor's Cabinet	Documentation of approval for office
3.2.3: Develop a funding mechanism to support the office and its activities	July 1, 2013	2 years	Personnel time				Vice Chancellor for Finance and Administration	Funding mechanism developed

## Implementation Plan | Portfolio Management of Actions

**Lever 3.2:** Centralize corporate relations to improve service to existing partners and to identify and establish new partnerships for the purpose of increasing/enhancing research, economic development, credit and non-credit education, philanthropy, and the hiring of our graduates

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefit	Owner(s)	Key Metric to Track
3.2.6: Broadly identify needs of external constituents that could be met by S&T	Sept. 1, 2014	5 years	Personnel time				Corporate Relations Team	Needs identified
3.2.7: Determine mechanisms to develop reciprocal partnerships	Sept. 1, 2014	5 years	Personnel time				Corporate Relations Team	Number of corporate partners Development of mechanism
3.2.8: Develop a method for evaluating the relative strength and breadth of the partnerships with external constituents (research, student hiring, giving, distance courses, board memberships, etc.)	Sept. 1, 2014	1 year	Personnel time				Corporate Relations Team	Acceptance of evaluation method



## Implementation Plan | Portfolio Management of Actions

**Lever 3.2:** Centralize corporate relations to improve service to existing partners and to identify and establish new partnerships for the purpose of increasing/enhancing research, economic development, credit and non-credit education, philanthropy, and the hiring of our graduates

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefit	Owner(s)	Key Metric to Track
3.2.9: Develop a matrix that reflects the multiple results of Action 3.2.1 above and provides an overall indication of the strength of the relationship and helps identify paths to maintain, strengthen or expand the partnership	Sept. 1, 2014	1 year	Personnel time				Corporate Relations Team	Acceptance of results by both S&T and corporate community
3.2.10: Create a concierge approach to corporate relations including a web presence that supports the mission of the office	Sept. 1, 2014	5 years	Personnel time				Corporate Relations Office Head	Acceptance of results by both S&T and corporate community  Development of web page  Number of corporate partnerships, corporate students, corporate research and contract revenue, gifts, students hired

## Implementation Plan | Portfolio Management of Actions

**Lever 3.2:** Centralize corporate relations to improve service to existing partners and to identify and establish new partnerships for the purpose of increasing/enhancing research, economic development, credit and non-credit education, philanthropy, and the hiring of our graduates

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefit	Owner(s)	Key Metric to Track
3.2.11: Develop marketing plan to communicate the benefits of the office to key customers. (See Lever 2.4)	Sept. 1, 2014	5 years	Personnel time				Corporate Relations Office Head	Heightened awareness of understanding of benefits, as measured by surveys or focus groups  Number of corporate partnerships, corporate students, corporate research and contract revenue, gifts, and students hired
3.2.12: Work with Information Technology to create a “customer relations” management database that provides easy access to usable and actionable information	Sept. 1, 2014	5 years	Personnel time				Corporate Relations Office Head	Number of corporate partnerships

## Implementation Plan | Overview of Metrics

**Lever 3.2:** Centralize corporate relations to improve service to existing partners and to identify and establish new partnerships for the purpose of increasing/enhancing research, economic development, credit and non-credit education, philanthropy, and the hiring of our graduates

Metrics for Levers	Actions	Metric	Baseline	Targets
Number of corporate partnerships	3.2.1: Create a corporate relations office and determine the role it should play in assisting the various interests within the S&T community in establishing appropriate relationships with external constituents	Documentation of approval for office		Office created
	3.2.3: Develop a funding mechanism to support the office and its activities.	Funding mechanism is created. Allocation of funds to support office.		Funds allocated
	3.2.6: Broadly identify needs of external constituents that could be met by S&T	Needs of constituents		Need identified and listed
	3.2.7: Determine mechanisms to develop reciprocal partnerships	Number of corporate partners Development of mechanism		
	3.2.8: Develop a method for evaluating the relative strength and breadth of the partnerships with external constituents (research, student hiring, giving, distance courses, board memberships, etc.)	Evaluation method		

## Implementation Plan | Overview of Metrics

**Lever 3.2:** Centralize corporate relations to improve service to existing partners and to identify and establish new partnerships for the purpose of increasing/enhancing research, economic development, credit and non-credit education, philanthropy, and the hiring of our graduates

Metrics for Levers	Actions	Metric	Baseline	Targets
Number of corporate partnerships	3.2.9: Develop a matrix that reflects the multiple results of Action 3.2.1 above and provides an overall indication of the strength of the relationship and helps identify paths to maintain, strengthen or expand the partnership	Matrix		Accepted by S&T and corporate community
	3.2.10: Create a concierge approach to corporate relations including a web presence that supports the mission of the office	Development of web page		Website complete
	3.2.11: Develop marketing plan to communicate the benefits of the office to key customers (See Lever 2.4)	Heightened awareness of understanding of benefits, as measured by surveys or focus groups  Number of corporate partnerships, corporate students, corporate research and contract revenue, gifts, and students hired		Plan developed
	3.2.12: Work with Information Technology to create a “customer relations” management data base that provides easy access to usable and actionable information	Number of corporate partnerships, corporate students, corporate research and contract revenue gifts, students hired		Database complete

## Implementation Plan | Portfolio Management of Actions

**Lever 3.3:** Improve facilities to enhance research and student learning, and expand experiential learning

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
3.3.1: Leverage strategic funds for instructional laboratories with matching funding from non-appropriated sources	July 1, 2013	2-3 years	\$500,000 (strategic initiative funds); \$500,000 (match funds); approximately \$460,000 in time commitment from campus; approximately \$32,500 (campus development funds)	\$1,492,500			Provost, Academic Deans	Instructional lab match funding acquired and allocated. Number of courses and students impacted. Number of remote collaborations supported.
3.3.2: Continue exploring plans and processes for acquiring matching funding for research equipment in areas that have high return on investment to be matched with non-appropriated funds	July 1, 2013	Ongoing	Personnel time				Vice Provost for Research, Vice Chancellor for University Advancement	Devise a development plan. Determine feasibility.
3.3.4: Continue evaluating all campus facilities for their readiness for sustainable growth and return on investment	July 1, 2013	Ongoing	Personnel time	\$300,000			Physical Facilities, Vice Chancellor for Finance and Administration	Complete the master plan
3.3.5: Develop and disseminate a research infrastructure database to help departments share equipment	July 1, 2013	5 years	Personnel time				Vice Provost for Research, Academic Deans	Database developed

## Implementation Plan | Portfolio Management of Actions

**Lever 3.3:** Improve facilities to enhance research and student learning, and expand experiential learning

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
3.3.6: Investigate the feasibility of establishing a \$20 million endowment for the maintenance of (teaching, research, and co-curricular) equipment (See Lever 3.9)	July 1, 2013	3 year	Time from Development				Development	Analysis report
3.3.10: Implement Learning Space Design Guidelines based on standard practices to guide the design of all learning spaces on campus	July 2014	2 years					Library Director, Development	Spaces designed

## Implementation Plan | Overview of Metrics

**Lever 3.3:** Improve facilities to enhance research and student learning, and expand experiential learning

Metrics for Levers	Actions	Metric	Targets
<p>Upgrades to instructional and research labs as demonstrated through expenditures; master plan complete; feasibility of endowments for equipment funding</p> <p><b>Baseline:</b> No match funds or endowments</p> <p><b>Target:</b> Matching funds established and expended, master plan completed, feasibility of endowments determined</p>	3.3.1: Leverage strategic funds for instructional laboratories with match funding from non-appropriated sources	Instructional lab match funding acquired and distributed. Number of courses and students impacted. Number of remote collaborations supported	<b>Year 2:</b> \$500,000 and \$500,000 match
	3.3.2: Devise a plan and process for acquiring match funding for research equipment in areas that have high return on investment to be matched with non-appropriated funds	Development plan	<b>Year 1:</b> Plan completed
	3.3.4: Evaluate all campus facilities for their readiness for sustainable growth and return on investment by engaging a campus master planning consultant	Master plan	<b>Year 1:</b> Completed master plan
	3.3.5: Develop and disseminate a research infrastructure database to help departments share equipment	Database completed	<b>Year 1:</b> Database accessible by departments
	3.3.6: Investigate the feasibility of establishing a \$20 million endowment for the maintenance of (teaching, research, and co-curricular) equipment (See Lever 3.9)	Donor analysis of potential	<b>Year 1:</b> Development analysis complete

## Implementation Plan | Overview of Metrics

**Lever 3.3:** Improve facilities to enhance research and student learning, and expand experiential learning.

Metrics for Levers	Actions	Metric	Targets
<p>Upgrades to instructional and research labs as demonstrated through expenditures; master plan complete; feasibility of endowments for equipment funding</p> <p><b>Baseline:</b> No match funds or endowments</p> <p><b>Target:</b> Matching funds established and expended, master plan completed, feasibility of endowments determined</p>	<p><b>3.3.10:</b> Implement Learning Space Design Guidelines based on standard practices to guide the design of all learning spaces on campus</p>	<p>Spaces designed</p>	<p><b>Year 1:</b> One</p>



## Implementation Plan | Portfolio Management of Actions

**Lever 3.4:** Promote inclusion and increase diversity of faculty, staff and students to remain relevant and competitive in a global environment

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
3.4.1: To increase diversity of faculty and staff, provide incentives to the hiring departments that select qualified underrepresented minorities	Sept. 1, 2013	5 years	Personnel time				Chancellor	Faculty underrepresented/ female faculty, professional/ administrative staff
3.4.2: To increase diversity of students, explore scholarship funding to be more competitive with underrepresented minorities/female/student recruitment ( <i>See Lever 3.9</i> )	Sept. 1, 2013	5 years	Personnel time				Vice Chancellor for University Advancement	Plan developed
3.4.3: Set up transfer articulation agreements with two-year institutions with large underrepresented minority populations	Sept. 1, 2013	5 years	Personnel time				Dean and Vice Provost for Enrollment Management	Articulation agreements
3.4.5: Develop and provide professional development and training for staff, faculty and students that provides awareness of diversity and inclusion issues and encourages them to develop skills that will make our campus a warm and welcoming environment	July 2014	Ongoing					Associate Vice Chancellor for HRSAADI	Number of trainings

## Implementation Plan | Portfolio Management of Actions

**Lever 3.4:** Promote inclusion and increase diversity of faculty, staff, and students to remain relevant and competitive in a global environment

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
3.4.6: Develop a comprehensive diversity and inclusion plan that would incorporate various action items	Sept. 1, 2013	5 years	Personnel time				Associate Vice Chancellor for Human Resources	Plan is created
3.4.7: Bring to campus underrepresented faculty as visiting scholars	Sept. 1, 2013	5 years	Personnel time				Provost, Academic Deans, Associate Vice Chancellor for HRSAAADI	One per semester
3.4.9: Review, revise and create policies that support work-life balance	Sept. 1, 2013	2 years	Personnel time				Chancellor, Human Resources	Policies created/revised
3.4.10: Evaluate and enhance faculty recruitment process and practice	Sept. 1, 2013	Ongoing	Committee of chairs, human resources personnel				Department Chair Council, Human Resources, Academic Deans	Processes reviewed, recommendations made
3.4.11: Explore collaborative partnerships for early childhood education, child development programs and facilities to enhance faculty recruitment and retention. Evaluate opportunities through campus master planning process (See Action 3.3.4)	Sept. 1, 2013	1 year	Personnel time				Vice Chancellor for Finance and Administration	Opportunities identified and evaluated

## Implementation Plan | Overview of Metrics

**Lever 3.4:** Promote inclusion and increase diversity of faculty, staff, and students to remain relevant and competitive in a global environment

Metrics for Levers	Actions	Metric	Targets	
<b>Metric:</b> Number of underrepresented minority/female faculty/staff/students  <b>Baseline:</b> Fall 2012  <b>Year 1 Target:</b> +2 faculty and 10 students  <b>Year 7 Target:</b> +14 faculty and 70 students	3.4.1: To increase diversity of faculty and staff, provide incentives to the hiring departments that select qualified underrepresented faculty	Number of underrepresented minority/female faculty, professional or administrative staff	<b>Year 1:</b> 2 underrepresented minority or female faculty and 1 professional or administrative staff  <b>Year 2:</b> 1st year plus 2 underrepresented minority or female faculty and 1 professional or administrative staff	
	3.4.2: To increase diversity of students, create scholarship funding to be more competitive with underrepresented minority/female student recruitment ( <i>See Lever 3.9</i> )	Explore the feasibility of expanding scholarship and grant funding for female and underrepresented minority students		
	3.4.3: Set up transfer articulation agreements with two-year predominantly underrepresented minority institutions	Lever agreement		<b>Year 1:</b> 1  <b>Year 2:</b> 2
	3.4.5: Develop and provide professional development and training for staff, faculty and students that provides awareness of diversity and inclusion issues and encourages them to develop skills that will make our campus a warm and welcoming environment	Trainings developed		<b>Year 1:</b> 1
	3.4.6: Develop a comprehensive diversity and inclusion plan that would incorporate various action items	Plan		<b>Year 1:</b> Plan is created
	3.4.7: Bring to campus underrepresented faculty as visiting scholars	Number of underrepresented faculty visiting scholars		<b>Year 1:</b> One per semester

## Implementation Plan | Overview of Metrics

**Lever 3.4:** Promote inclusion and increase diversity of faculty, staff, and students to remain relevant and competitive in a global environment

Metrics for Levers	Actions	Metric	Targets
<b>Metric:</b> Number of underrepresented minority/female faculty/staff/students  <b>Baseline:</b> Fall 2012  <b>Year 1 Target:</b> +2 faculty and 10 students  <b>Year 7 Target:</b> +14 faculty and 70 students	3.4.9: Review, revise and create policies that support work-life balance	Policies created/revised	
	3.4.10: Evaluate and enhance faculty recruitment process and practice	Processes reviewed, recommendations made	
	3.4.11: Explore collaborative partnerships for early childhood education, child development programs and facilities to enhance faculty recruitment and retention. Evaluate opportunities through campus master planning process (See Action 3.3.4)	Opportunities identified and evaluated	

## Implementation Plan | Portfolio Management of Actions

**Lever 3.5:** Create and implement a plan for student and alumni lifetime engagement strategy

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
3.5.1: Utilize the library and archives in creating collaborative online areas where alumni can view yearbooks, the Miner, photos, and other memorabilia. As we digitize these collections, we can engage alumni in identifying people and events, and in telling stories online	July 1, 2013	Ongoing	Personnel time				Library Director, Provost, Archives Director, Alumni Association Director	Number of alumni engaging with online collections
3.5.2: Create lifetime email addresses that support contact and engagement	July 1, 2013	Ongoing	Personnel time				Chief Information Officer, Alumni Association Director	Lifetime accounts created. Usage data.
3.5.3: Create a multifaceted engagement program that brings students through graduation and to the Academy levels	July 1, 2013	Ongoing with no specified end date	Personnel time				Vice Chancellor for University Advancement, Vice Chancellor for Student Affairs, Department Chairs, Academic Deans	Levels of volunteerism across campus by students and alumni, student participation, donor retention, alumni participation in alumni activities and programs, alumni giving

## Implementation Plan | Overview of Metrics

**Lever 3.5:** Create and implement a plan for student and alumni lifetime engagement strategy

Metrics for Levers	Actions	Metric	Baseline	Targets
<p>A notable growth in campus engagement by our undergraduate, graduate, alumni and donors. This growth is measured using: Levels of involvement across campus by students and alumni; student participation, donor retention, alumni participation in alumni activities and programs, and alumni giving.</p> <p><b>Baseline:</b> Current levels of student participation in campus events and co-curricular activities; current alumni involvement and annual giving</p> <p><b>Year 1 Target:</b> A plan is established and activities have begun to address this lever</p> <p><b>Year 5 Target:</b> A significant increase in graduating students maintaining a continued relationship with Missouri S&amp;T. Significant expansions in the numbers of donors and the amount of money raised. An increase in the number of alumni who re-engage with the campus either by attending campus events, involvement in alumni activities or organizations and growth in alumni giving.</p>	<p><b>3.5.1:</b> Utilize the library and archives in creating collaborative online areas where alumni can view yearbooks, the Miner, photos, and other memorabilia</p>	Usage data	0	<p><b>Year 1:</b> Usage data, measure quantity of users accessing, how long they engage, areas of interest</p> <p><b>Year 2:</b> Increased usage by current and new users. Requests for and creation of new areas of engagement.</p>
	<p><b>3.5.2:</b> Create lifetime email addresses that support contact and engagement</p>	Accounts created	0	<p><b>Year 1:</b> Lifetime accounts created</p> <p><b>Year 5:</b> Lifetime accounts being used by a significant number of students/ alumni</p>
	<p><b>3.5.3:</b> Create a multifaceted engagement program that brings students through graduation and to the Academy levels</p>	Program created	Current levels of student and alumni involvement with campus sponsored or approved activities	<p><b>Year 1:</b> Completion of a best practices summary. The establishment of a assessment instrument that aligns with theme 3 Lever 5 purpose.</p> <p><b>Year 2:</b> Recommendations/programs implemented</p> <p><b>Year 3:</b> Observable increases in: levels of volunteerism across campus by students and alumni; student participation; donor retention; alumni participation in alumni activities and programs, alumni giving.</p>

## Implementation Plan | Portfolio Management of Actions

**Lever 3.8:** Exercise leadership in sustainability on campus and in the community by modeling sustainability practices in daily operations and practicing good environmental stewardship

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
3.8.1: Stabilize long-term funding for the Office of Sustainable Energy and Environmental Engagement	July 1, 2013	5 years	Personnel time		\$300,000 target		Office of Sustainable Energy and Environmental Engagement, Vice Chancellor for Finance and Administration	Funding for Office of Sustainable Energy and Environmental Engagement
3.8.2: Led by Office of Sustainable Energy and Environmental Engagement, initiate and create student awareness programs and associated funding vehicles to promote our sustainable research and campus initiatives	July 1, 2013	Ongoing	Personnel time				Office of Sustainable Energy and Environmental Engagement, Provost	Student sustainability fee approved by student council
3.8.3: Create, in conjunction with Physical Facilities and Environmental Health and Safety, a sustainable waste management plan for all university waste	July 1, 2014	1 year	Personnel time				Office of Sustainable Energy and Environmental Engagement, Vice Chancellor for Finance and Administration	Waste management plan completed and approved

## Implementation Plan | Portfolio Management of Actions

**Lever 3.8:** Exercise leadership in sustainability on campus and in the community by modeling sustainability practices in daily operations and practicing good environmental stewardship

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
3.8.5: Create and promote an alternative transportation culture, focused around simple transportation methods, including pedestrian and cycling, to improve alternative transportation infrastructure over the next five years	July 1, 2013	5 years	Personnel time				Office of Sustainable Energy and Environmental Engagement, Vice Chancellor for Finance and Administration	Projects identified and funded



## Implementation Plan | Portfolio Management of Actions

**Lever 3.8:** Exercise leadership in sustainability on campus and in the community by modeling sustainability practices in daily operations and practicing good environmental stewardship

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
3.8.6: Investigate existing and new courses for sustainability awareness for faculty, staff and students	July 1, 2013	1 year	Personnel time				Office of Sustainable Energy and Environmental Engagement, Academic Deans	Course development and implementation
3.8.7: Create campus sustainability project revolving fund that will allow savings to be invested back into the fund to underwrite future projects	July 1, 2013	2 years	Personnel time				Vice Chancellor for Finance and Administration, Office of Sustainable Energy and Environmental Engagement	Fund established and new projects funded
3.8.8: Track energy, environmental, and sustainability research on campus	July 1, 2013	5 years	Personnel time				Vice Provost for Academic Affairs, Office of Sustainable Energy and Environmental Engagement, Vice Provost for Research	Expenditure report
3.8.13: Analyze new construction with U.S. Green Building Council LEED (Leadership in Energy and Environment Design) principles, and pursue LEED certification when appropriate	July 1, 2013	Ongoing	Personnel time				Vice Chancellor for Finance and Administration, Office of Sustainable Energy and Environmental Engagement	Decision implemented

## Implementation Plan | Overview of Metrics

**Lever 3.8:** Exercise leadership in sustainability on campus and in the community by modeling sustainability practices in daily operations and practicing good environmental stewardship

Metrics for Levers	Actions	Metric	Baseline	Targets
Comprehensive sustainability plan created and approved	<b>3.8.1:</b> Stabilize long-term funding for the Office of Sustainable Energy and Environmental Engagement	Funding for Office of Sustainable Energy and Environmental Engagement		Funding allocated
	<b>3.8.2:</b> Led by Office of Sustainable Energy and Environmental Engagement, initiate and create student awareness programs and associated funding vehicles to promote our sustainable research and campus initiatives. Funding vehicles: student fees (Baseline and Target)	Sustainability fee		<b>Year 1:</b> Approved by student council
	<b>3.8.3:</b> Create, in conjunction with Physical Facilities and Environmental Health and Safety, a sustainable waste management plan for all university waste	Waste management plan		<b>Year 1:</b> Plan approved
	<b>3.8.5:</b> Create and promote an alternative transportation culture, focused around simple transportation methods, including pedestrian and cycling, to improve alternative transportation infrastructure over the next five years	Alternative transportation projects		<b>Year 5:</b> Projects identified and funded
	<b>3.8.6:</b> Investigate existing and new courses for sustainability awareness for faculty, staff and students	Course development and implementation		Courses implemented into curriculum

## Implementation Plan | Overview of Metrics

**Lever 3.8:** Exercise leadership in sustainability on campus and in the community by modeling sustainability practices in daily operations and practicing good environmental stewardship

Metrics for Levers	Actions	Metric	Baseline	Targets
Comprehensive sustainability plan created and approved	3.8.7: Create campus sustainability project revolving fund that will allow savings to be invested back into the fund to underwrite future projects	Revolving fund		Fund created and used to support projects
	3.8.8: Track energy, environmental, and sustainability research on campus	Expenditure report		<b>Year 1:</b> Report created
	3.8.13: Analyze new construction with U.S. Green Building Council LEED (Leadership in Energy and Environment Design) principles, and pursue LEED certification when appropriate	Decision implemented		Decision implemented

## Implementation Plan | Portfolio Management of Actions

**Lever 3.9:** Conduct a comprehensive fundraising campaign to secure private support for identified campus priorities

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
3.9.4: Review, update and approve naming policy	July 1, 2013	1 year	Personnel time				Advancement	Policy updated
3.9.9: Update gift officer portfolios based on wealth screening	July 2014	1 year	Personnel time				Advancement	Portfolios updated
3.9.10: Lead review and decision-making by senior campus leadership to identify and prioritize fundraising opportunities based on new strategic plan and updated campus master plan	July 2014	1 year	Personnel time				Advancement	Prioritized funding
3.9.11: Develop campaign case statement based on prioritized list of fundraising targets	July 2014	1 year	Personnel time				Advancement	Case statement
3.9.12: Recruit and hire staff	July 2014	2 years	Personnel time				Advancement	Hired staff
3.9.13: Train new staff	July 2014	2 years	Personnel time				Advancement	Train staff
3.9.14: Identify prospects for campaign cabinet	July 2014	1.5 years	Personnel time				Advancement	Prospects identified
3.9.15: Recruit campaign cabinet	July 2014	1.5 years	Personnel time				Advancement	Cabinet recruited
3.9.15 a.: Develop roles and responsibilities for cabinet	July 2014	1.5 years	Personnel time				Advancement	Cabinet meetings launched

## Implementation Plan | Portfolio Management of Actions

**Lever 3.9:** Conduct a comprehensive fundraising campaign to secure private support for identified campus priorities

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
3.9.16: Develop and publish campaign collateral materials for leadership and major gifts	July 2014	1 year	Personnel time				Advancement	Materials developed
3.9.17: Develop and publish campaign collateral materials for participatory gifts	July 2014	1 year	Personnel time				Advancement	Materials developed
3.9.18: Develop campaign proposal templates	July 2014	1 year	Personnel time				Advancement	Proposal developed
3.9.19: Solicit leadership gifts	July 2014	1 year	Personnel time				Advancement	Gifts closed
3.9.20: Solicit major gifts	July 2014	1 year	Personnel time				Advancement	Gifts closed
3.9.21: Solicit participatory gifts	July 2014	1 year	Personnel time				Advancement	Gifts closed
3.9.22: Conduct faculty/ staff campaign	July 2014	1 year	Personnel time				Advancement	Campaign conducted
3.9.23: Public announcement of campaign and goal	July 2014	1 year	Personnel time				Advancement	Conduct announcement
3.9.24: Develop campaign report, metrics, format and process	July 2014	1 year	Personnel time				Advancement	Report developed
3.9.25: Determine donor satisfaction baselines, set goals for improvements	July 2014	1 year	Personnel time				Advancement	Baselines

## Implementation Plan | Portfolio Management of Actions

**Lever 3.9:** Conduct a comprehensive fundraising campaign to secure private support for identified campus priorities

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
3.9.26: Implement Advizor data tool	July 2014	1 year	Personnel time				Advancement	Tool implemented
3.9.27: Complete iModules installation	July 2014	1 year	Personnel time				Advancement	Installation completed
3.9.28: Dedicate Bertelsmeyer Hall	July 2014	1 year	Personnel time				Advancement	Dedication completed
3.9.29: Dedicate Hasselmann Alumni House	July 2014	1 year	Personnel time				Advancement	Dedication completed
3.9.30: Launch online honor roll of donors	July 2014	1 year	Personnel time				Advancement	Launch completed
3.9.31: Begin planning and laying groundwork for an Arts, Sciences and Business Academy	July 2014	1 year	Personnel time				Advancement	Planning phase completed
3.9.32: Identify and appoint directors of development for each college	July 2014	1 year	Personnel time				Advancement	Directors appointed
3.9.33: Complete reorganization	July 2014	1 year	Personnel time				Advancement	Reorganization completed
3.9.34: Explore the feasibility and resources required to create for donors an online repository of personal giving records	July 2014	1 year	Personnel time				Advancement	Feasibility determined
3.9.35: Plan and host recognition events for lab upgrade donors	July 2014	1.5 years	Personnel time				Advancement	Events completed

## Implementation Plan | Portfolio Management of Actions

**Lever 3.9:** Conduct a comprehensive fundraising campaign to secure private support for identified campus priorities

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
3.9.36: Evaluate inaugural Philanthropy Month and develop opportunities for expansion	July 2014	1 year	Personnel time				Advancement	Opportunities developed

## Implementation Plan | Overview of Metrics

**Lever 3.9:** Conduct a comprehensive fundraising campaign to secure private support for identified campus priorities

Metrics for Levers	Actions	Metric	Baseline	Targets
<p><b>Total number of annual donors:</b> Available June 30, 2013</p> <p><b>Target 2020:</b> Positive annual growth of 1%</p> <p><b>Alumni participation (earned degrees only):</b> Available June 30, 2013</p> <p><b>Target 2020:</b> Positive annual growth</p> <p>Renewal rate of all donors: <b>Baseline:</b> 65%    <b>Target 2020:</b> 66%</p> <p>Renewal rate of alumni donors: <b>Baseline:</b> 74%    <b>Target 2020:</b> 75%</p>	3.9.4: Review, update and approve naming policy	Policy updated	Historical	<b>Year 1:</b> Policy updated and approved
	3.9.9: Update gift officer portfolios based on wealth screening	Portfolios updated		
	3.9.10: Lead review and decision-making by senior campus leadership to identify and prioritize fundraising opportunities based on new strategic plan and updated campus master plan	Prioritized funding		
	3.9.11: Develop campaign case statement based on prioritized list of fundraising targets	Case statement		
	3.9.12: Recruit and hire staff	Hired staff		
	3.9.13: Train new staff	Train staff		
	3.9.14: Identify prospects for campaign cabinet	Prospects identified		
	3.9.15: Recruit campaign cabinet	Cabinet recruited		
	3.9.15 a.: Develop roles and responsibilities for cabinet	Cabinet meetings launched		
	3.9.16: Develop and publish campaign collateral materials for leadership and major gifts	Materials developed		
	3.9.17: Develop and publish campaign collateral materials for participatory gifts	Materials developed		
	3.9.18: Develop campaign proposal templates	Proposal developed		
	3.9.19: Solicit leadership gifts	Gifts closed		



## Implementation Plan | Overview of Metrics

**Lever 3.9:** Conduct a comprehensive fundraising campaign to secure private support for identified campus priorities

Metrics for Levers	Actions	Metric	Baseline	Targets
<p><b>Total number of annual donors:</b> Available June 30, 2013</p> <p><b>Target 2020:</b> Positive annual growth of 1%</p> <p><b>Alumni participation (earned degrees only):</b> Available June 30, 2013</p> <p><b>Target 2020:</b> Positive annual growth</p> <p>Renewal rate of all donors: <b>Baseline:</b> 65%    <b>Target 2020:</b> 66%</p> <p>Renewal rate of alumni donors: <b>Baseline:</b> 74%    <b>Target 2020:</b> 75%</p>	3.9.20: Solicit major gifts	Gifts closed		
	3.9.21: Solicit participatory gifts	Gifts closed		
	3.9.22: Conduct faculty/staff campaign	Campaign conducted		
	3.9.23: Public announcement of campaign and goal	Conduct announcement		
	3.9.24: Develop campaign report, metrics, format and process	Report developed		
	3.9.25: Determine donor satisfaction baselines, set goals for improvements	Baselines		
	3.9.26: Implement Advizor data tool	Tool implemented		
	3.9.27: Complete iModules installation	Installation completed		
	3.9.28: Dedicate Bertelsmeyer Hall	Dedication completed		
	3.9.29: Dedicate Hasselmann Alumni House	Dedication completed		
	3.9.30: Launch online honor roll of donors	Launch completed		
	3.9.31: Begin planning and laying groundwork for an Arts, Sciences and Business Academy	Planning phase completed		
	3.9.32: Identify and appoint directors of development for each college	Directors appointed		
	3.9.33: Complete reorganization	Reorganization completed		
	3.9.34: Explore the feasibility and resources required to create for donors an online repository of personal giving records	Feasibility determined		
	3.9.35: Plan and host recognition events for lab upgrade donors	Events completed		
3.9.36: Evaluate inaugural Philanthropy Month and develop opportunities for expansion	Opportunities developed			

## Implementation Plan/Actions and Metrics

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### Theme 4<sup>1</sup>

Increase and facilitate meaningful access to and interaction with renowned faculty, staff and services

#### Metric 1

First-to-second year undergraduate student retention rate (**Baseline:** 85%; **Target 2020:** 88%)

#### Metric 2

Total graduate student support per funded graduate student (**Baseline:** \$13,700; **Target 2020:** \$17,500)

<sup>1</sup> Only Theme 4 actions initiated in the first year are shown in this section.

## Implementation Plan | Portfolio Management of Actions

**Lever 4.1:** Create a comprehensive distance and online education strategy

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
4.1.1: Conduct a focused market study analysis to serve as the foundation for a comprehensive distance and online education strategy	July 1, 2013	2 years	Personnel time	\$30,000			Vice Provost for Global Learning, Vice Chancellor for Global and Strategic Partnerships	Statistically valid coverage Study completed
4.1.2: Bring together distance and online programs under one umbrella so as to leverage advantages of both, to pool resources, and to eliminate confusion	July 1, 2013	1 year	Personnel time				Vice Provost for Global Learning, Provost, Vice Chancellor for Global and Strategic Partnerships	New organization authorized
4.1.4: Increase our focus on the professional non-credit distance education portfolio	July 1, 2013	5 years	Personnel time				Vice Provost for Global Learning	Size of portfolio Enrollment and revenue
4.1.5: Involve library to work on storage, usage and copyright issues involving online resources including multimedia	July 2014	1 year	Personnel time				Library Director	Library involvement

## Implementation Plan | Portfolio Management of Actions

**Lever 4.1:** Create a comprehensive distance and online education strategy

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
4.1.6: Create an incentive program to encourage departments and faculty to offer more online, blended and distance courses (See Lever 2.5)	July 1, 2013	5 years	Personnel time				Vice Provost for Global Learning, Provost	Number of course and program offerings
4.1.7: Leverage existing success and resources from Distance Ed program to expand into more online or asynchronous course offering	July 1, 2013	5 years	Personnel time	\$150,000	\$50,000		Vice Provost for Global Learning	Use of Video Communications Center facilities for online and asynchronous course production

## Implementation Plan | Overview of Metrics

**Lever 4.1:** Create a comprehensive distance and online education strategy

Metrics for Levers	Actions	Metric	Baseline	Targets
Increase the number of distance/online courses offered per year from a baseline of 200 to a target of 300 per year by 2020. Increase the number of distance/online students enrolled per year from a baseline of 1,513 to 2,013 by 2020.	4.1.1: Conduct a focused market study analysis to serve as the foundation for a comprehensive distance and online education strategy	Market study	No study at this time	Complete Study
	4.1.2: Bring together distance and online programs under one umbrella so as to leverage advantages of both, to pool resources, and to eliminate confusion	New organizational structure	Baseline is zero since there is currently no single organization focused on both these activities at an operational level beneath the provost	Authorization of a new organization structure
	4.1.4: Increase our focus on the professional non-credit distance education portfolio	Size of portfolio Enrollment and revenue		
	4.1.5: Involve library to work on storage, usage and copyright issues involving online resources including multimedia			
	4.1.6: Create an incentive program to encourage departments and faculty to offer more online, blended and distance courses	Number of course and program offerings	200	300
	4.1.7: Leverage existing success and resources from Distance Ed program to expand into more online or asynchronous course offering	Use of Video Communications Center recording facilities for online and asynchronous courses	0 hours per month	10 hours per month

## Implementation Plan | Portfolio Management of Actions

**Lever 4.2:** Enhance instructional labs and methods of delivering lab experiences

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
4.2.1: Explore how to partner with other universities, community colleges, high schools or extension to deliver lab experiences	July 1, 2013	3 years	Faculty time				Provost, Academic Deans, Department Chairs	Partner institution
4.2.2: Develop model frameworks and strategies for evaluating and redesigning instructional lab courses for blended/online delivery	July 1, 2013	3 years	Faculty time Staff time				Provost, Academic Deans, Department Chairs	Develop model framework and strategy

## Implementation Plan | Overview of Metrics

**Lever 4.2:** Enhance instructional labs and methods of delivering lab experiences

Metrics for Levers	Actions	Metric	Baseline	Targets
<b>Metric:</b> Institution partners and redesigned instructional lab courses  <b>Baseline:</b> 0 partners and 0 courses  <b>Year 5 Target:</b> 2 partners and 5 redesigned labs implemented	<b>4.2.1:</b> Explore how to partner with other universities, community colleges, high schools or extension to deliver lab experiences	Number of institution partners	1	<b>Year 1:</b> At least one potential institution partner identified.  <b>Year 5:</b> At least 2 other institution partners
	<b>4.2.2:</b> Develop model frameworks and strategies for evaluating and redesigning instructional lab courses (including simulations) for blended/online delivery	Develop model framework and strategy	None	<b>Year 2:</b> Model framework and strategy developed and piloted on one instructional lab  <b>Year 5:</b> Framework and strategy implemented on five instructional labs

## Implementation Plan | Portfolio Management of Actions

**Lever 4.5:** Engage in transformative doctoral student recruiting/retention and placement

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
4.5.1: Develop a plan to provide fully covered tuition for doctoral students on appointments and explore implementation	July 1, 2013	1 year	Personnel time				Vice Provost for Graduate Studies	Develop a plan Implementation recommendations
4.5.3: (Recruit) Develop memorandum of understandings and articulation agreements with reputed national and international schools to recruit high quality doctoral students	July 1, 2013	5 years	Personnel time				Vice Provost for Graduate Studies, Director of International Affairs	Number of active/inactive memorandum of understandings, articulation agreements
4.5.4: (Recruit) Develop a marketing plan to promote comprehensive S&T graduate leadership and excellence	July 1, 2013	2 years	Personnel time				Vice Provost for Graduate Studies, Vice Provost and Dean of Enrollment Management, Graduate Faculty Council	Heightened awareness of S&T's leadership and excellence in graduate education, as measured by surveys and focus groups
4.5.6: (Retain) Study GRA "bridge funding" between faculty grant funding and graduation	July 1, 2013	1 year	Personnel time				Vice Provost for Graduate Studies, Vice Provost for Research	Complete study and provide recommendations



## Implementation Plan | Portfolio Management of Actions

**Lever 4.5:** Engage in transformative doctoral student recruiting/retention and placement

Prioritized Actions	Start Date	Duration	Resources Required	One-Time Costs	Recurring Costs	Revenue Benefits	Owner(s)	Key Metric to Track
4.5.7: (Retain) Conduct a feasibility study and develop a plan for a Graduate Resource/Success Center to help students in the timely completion of their degrees, and for leadership/professional development	July 1, 2014	1 year	Personnel time				Vice Provost for Graduate Studies	Complete study and provide recommendations
4.5.12: (Recruit) Investigate creating a \$10 million endowment for recruiting high quality doctoral students (See Lever 3.9)	July 1, 2013	2 years	Personnel time				Vice Provost for Graduate Studies, Vice Chancellor for University Advancement	Provide plan. (See Lever 3.9)

## Implementation Plan | Overview of Metrics

**Lever 4.5:** Engage in transformative doctoral student recruiting/retention and placement

Metrics for Levers	Actions	Metric	Baseline	Targets
<p><b>Metric:</b> Publications per research-based, graduate degree awarded</p> <p><b>Baseline:</b> 12 <b>Target 2020:</b> 15</p> <p><b>Metric:</b> Total student support per funded graduate student</p> <p><b>Baseline:</b> \$13,700 <b>Target 2020:</b> \$17,500</p> <p><b>Metric:</b> Ph.D. enrollment</p> <p><b>Baseline:</b> Fall 2012 <b>Target 2020:</b> 200-400</p>	4.5.1: Develop and implement a plan to fully cover in-state tuition and fees for doctoral students on appointments	Plan		Develop plan and implementation recommendations
	4.5.3: (Recruit) Develop MOUs and articulation agreements with reputed national and international schools to recruit high quality doctoral students	Number of active/inactive MOUs, articulation agreements; student yield from such agreements	Calendar Year 2012	<p><b>Year 1:</b> 1 new agreement</p> <p><b>Year 5:</b> 10 new agreements</p>
	4.5.4: (Recruit) Develop a marketing plan to promote comprehensive S&T graduate leadership and excellence	Coordinate department materials.	Calendar Year 2012	Heightened awareness of S&T's leadership and excellence in graduate education, as measured by surveys and focus groups
	4.5.6: (Retain) Study GRA "bridge funding" between faculty grant funding and graduation	Study.		Study completed with recommendations
	4.5.7: (Retain) Conduct a feasibility study and develop a plan for a Graduate Resource/Success Center to help students in the timely completion of their degrees, and for leadership/professional development	Complete study/satisfaction, time-to-degree		<p><b>Year 1:</b> Complete study with recommendations</p> <p><b>Year 3:</b> 75% of on-campus students use services</p>
	4.5.12: (Recruit) Investigate creating a \$10 million endowment for recruiting high quality doctoral students (See Lever 3.9)	Complete study		<b>Year 1:</b> Plan developed

## S&T Strategy Metrics

### S&T Strategy Metrics

Metric	Source	Strategic Plan Baseline	Strategic Plan Baseline Date	Strategic Plan Target	Strategic Plan Target Date
Starting salary of undergraduate students	Career Opportunities and Employer Relations Office	\$59,504	Fall 2012	\$65,000	FY2020
<i>U.S. News and World Report</i> recruiter assessment score	<i>U.S. News and World Report</i>	3.3	Fall 2012	3.5	FY2020
Number of students enrolled via distance or online per year	Office of the Registrar	1,513	Fall 2012	2,013	FY2020
Number of invention disclosures per \$10M R&D expenditures	Office of Technology Transfer and Economic Development	8.9	FY2011 most current year data available for comparators	10	FY2020
Employer satisfaction with hires	Employer satisfaction survey	92%	Fall 2012	92%	FY2020
Donor satisfaction with the Missouri S&T giving experience	Annual donor satisfaction survey	To be established in Spring 2014	Spring 2014	To be determined in Spring 2014	FY2020

## S&T Best-in-Class Metrics

### S&T Best-in-Class Metrics

Metric	Source	Strategic Plan Baseline	Strategic Plan Baseline Date	Strategic Plan Target	Strategic Plan Target Date
Engineering doctoral students per tenured, tenure-track engineering faculty	ASEE	1.9	Fall 2011 most current year data available for comparators	3.1	FY2020
National Science Foundation grant expenditures per tenured, tenure-track faculty	NSF	\$18,893	Fall 2011 most current year data available for comparators	\$40,000	FY2020
Number of graduate engineering and science programs offered online or by distance	Office of the Registrar	14	Fall 2012	18	FY2020

## Appendices



## Appendix A | Delayed Action Items

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### Lever 1.1

**Description:** Require all undergraduate students to participate in some significant experiential learning activity before graduation

#### Lever/Category of Action 1.1.2a

**Description:** Completion of Action Item 1- Create a defining comprehensive list of activities that are supported by research as significant experiential activities by department

**Metrics for success:** Completion of Action Item 1 by December 2013 and list of approved significant activities by each department

**One-time costs:**

**Recurring costs:**

#### Lever/Category of Actions 1.1.3

**Description:** Assign responsibilities associated with monitoring Actions 1.1.1 and 1.1.2 and maintaining the reporting of experiential learning activities to the Vice Provost for Undergraduate Studies, who will regularly inform the Strategic Planning Progress Manager (SPPM) on progress (See *Lever 2.7*) (High Impact Low Feasibility)

**Metrics for success:** Hire Strategic Planning Progress Manager and create monitoring and update plan

**One-time costs:**

**Recurring costs:**

#### Lever/Category of Actions 1.1.4

**Description:** Research and adopt fund-raising models for supporting Pell-eligible students in experiential learning opportunities (See *Lever 3.9*) (Medium Impact Medium Feasibility)

**Metrics for success:** Adoption of applicable models

**One-time costs:**

**Recurring costs:**

## Appendix A | Delayed Action Items

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### Lever 1.2

**Description:** Foster innovation and creativity for faculty, staff, students and administration

#### Lever/Category of Actions 1.2.4

**Description:** Encourage entrepreneurship in the campus community through entrepreneurship courses to feed the campus business “incubator” including interdisciplinary course work that attracts creative students who want to make a difference (High Impact High Feasibility)

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

#### Lever/Category of Actions 1.2.7

**Description:** Encourage participation in cross-disciplinary or global experiences (e.g., arts and humanities experiences for engineering, science and business students, study abroad) (High Impact Low Feasibility)

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

#### Lever/Category of Actions 1.2.9

**Description:** Encourage an environment that promotes student-staff interaction through research and/or entrepreneurship (High Impact Low Feasibility)

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

#### Lever/Category of Actions 1.2.11

**Description:** Encourage regular use of faculty and staff of sabbatical or other off-site learning opportunities that contribute to the university’s strategic initiatives, department objectives, and individual development of expertise (High Impact Low Feasibility)

**Metrics for success:**

**One-time costs:**

**Recurring costs:** \$20,000

## Appendix A | Delayed Action Items

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### **Lever 1.3**

**Description:** Establish database of measures to be used to define student access to faculty and staff

#### **Lever/Category of Actions 1.3.4**

**Description:** Create a hiring plan with Levers 2.1 and 2.2 for faculty and staff in line with established ratios and accepted definition of meaningful interaction.

**Metrics for success:** Completion of recommendation

**One-time costs:** Professional Staff or Project Specialist time

**Recurring costs:**



## Appendix A | Delayed Action Items

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### Lever 2.1

**Description:** Employ transformative and focused faculty hiring and retention, including cluster hires in select areas of expertise to support best in class (BIC) achievements. Identify two BIC areas for investment and initiate discussion on another two BIC areas

#### Lever/Category of Actions 2.1.5

**Description:** Hire four faculty to complement each endowed chair hired under Action 2.1.4

**Metrics for success:** Complementary faculty associated with the endowed chair

**One-time costs:** \$78,000 (Start up under Action 2.1.6)

**Recurring costs:** \$1,590,000 (full implementation by 2020)

#### Lever/Category of Actions 2.1.9

**Description:** Hire four faculty to complement each endowed chair hired under Action 2.1.8

**Metrics for success:** Number of complementary faculty associated with the endowed chair

**One-time costs:** \$80 (Start ups under Action 2.1.6)

**Recurring costs:** \$1,610,000 (Full implementation by 2020)

## Appendix A | Delayed Action Items

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### **Lever 2.3**

**Description:** Develop a culture of excellence in research, scholarship, and creative activity among faculty, staff and students

#### **Lever/Category of Actions 2.3.6**

**Description:** Increase SRI to PIs

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

#### **Lever/Category of Actions 2.3.7**

**Description:** Identify and take actions to improve the metrics that contribute to increasing the national ranking of five graduate programs

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

## Appendix A | Delayed Action Items

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### **Lever 2.4**

**Description:** Create and implement a communication and marketing plan to raise the visibility of the campus and convey our return on investment

#### **Lever/Category of Actions 2.4.6**

**Description:** Require researchers to include in their research proposals a request for a certain percentage of funding (to be determined by the Marketing Leadership Team in consultation with the Vice Provost for Research and Sponsored Programs) to support the research-related tactics of the integrated, campuswide marketing plan. (NSF, for example, allows funding requests for “publication/documentation/dissemination,” which can be used to support public relations and marketing activities.) (Medium Impact Medium Feasibility)

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

## Appendix A | Delayed Action Items

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### Lever 2.5

**Description:** Modify our conventional methods of teaching to accommodate current, new and advanced technology that will enhance student learning and increase faculty productivity

#### Lever/Category of Action 2.5.1

**Description:** Redefine CERTI to become a more comprehensive resource for Teaching and Learning to attract more faculty participating (High Impact Medium Feasibility)

**Metrics for success:** Increase number of faculty participating

**One-time costs:**

**Recurring costs:** \$45,000

#### Lever/Category of Actions 2.5.4

**Description:** Obtain funds to establish a Chancellor's eLearning Transformation Program (Medium Impact Medium Feasibility)

**Metrics for success:** Budget established. Number of course and program offerings.

**One-time costs:** \$100,000 for classroom upgrades

**Recurring costs:** \$50,000/position

#### Lever/Category of Actions 2.5.5

**Description:** Create a "10 Before Tenure" program where untenured faculty participate in 10 career development programs (High Impact High Feasibility)

**Metrics for success:** Number of faculty participating. Creation of program.

**One-time costs:** \$10,000

**Recurring costs:** \$10,000

#### Lever/Category of Actions 2.5.7

**Description:** Investigate offering courses in innovative modular format (Medium Impact Medium Feasibility)

**Metrics for success:** Report submitted to provost. Report issued.

**One-time costs:**

**Recurring costs:**

## Appendix A | Delayed Action Items

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### Lever 3.1

**Description:** Evaluate current academic programs and create, modify, eliminate or combine in order to ensure a relevant portfolio that supports a Carnegie ranking as a national, research university

#### Lever/Category of Action 3.1.4

**Description:** Develop a comprehensive distance and online education strategy (High Impact Medium Feasibility)

Metrics for success:

One-time costs:

Recurring costs:

#### Lever/Category of Action 3.1.5

**Description:** Examine how to share courses so that faculty time is preserved (High Impact Medium Feasibility)

Metrics for success:

One-time costs:

Recurring costs:

#### Lever/Category of Action 3.1.6

**Description:** Investigate a module approach to instruction instead of 3-credit courses (High Impact Medium Feasibility)

Metrics for success:

One-time costs:

Recurring costs:

#### Lever/Category of Action 3.1.7

**Description:** Eliminate programs that are sub-par (High Impact Low Feasibility)

Metrics for success:

One-time costs:

Recurring costs:

## Appendix A | Delayed Action Items

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### **Lever 3.3**

**Description:** Improve facilities to enhance research and student learning, and expand experiential learning

#### **Lever/Category of Action 3.3.3**

**Description:** Implement the development plan from Action 3.3.2 (High Impact High Feasibility)

**Metrics for success:** Research equipment purchased. Second-year target: \$1 million per year.

**One-time costs:**

**Recurring costs:**

#### **Lever/Category of Action 3.3.9**

**Description:** Evaluate the possibility to use GRA funding for research facilities in areas that arguably have high return on investment to be used as match to State initiatives such as HJR14 (High Impact Low Feasibility)

**Metrics for success:** Process to access state initiative. 1st Year Target: Process developed

**One-time costs:**

**Recurring costs:**

#### **Lever/Category of Action 3.3.11**

**Description:** Assess effectiveness of collaborative learning spaces (e.g. learning commons) that can be used for experiential learning opportunities and undergraduate research (Medium Impact High Feasibility)

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

## Appendix A | Delayed Action Items

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### **Lever 3.4**

**Description:** Promote inclusion and increase diversity of faculty, staff, and students to remain relevant and competitive in a global environment

#### **Lever/Category of Actions 3.4.4**

**Description:** Development of “affinity groups” to promote relationships (High Impact High Feasibility)

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

#### **Lever/Category of Actions 3.4.8**

**Description:** Review the performance evaluation process and add a component that will encourage participation in programs and events that are connected to diversity and inclusion (High Impact High Feasibility)

**Metrics for success:** Component added

**One-time costs:**

**Recurring costs:**

## Appendix A | Delayed Action Items

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### Lever 3.8

**Description:** Exercise leadership in sustainability on campus and in the community by modeling sustainability practices in daily operations and practicing good environmental stewardship

#### Lever/Category of Action 3.8.4

**Description:** Create a minimum of two technology pilot programs per year to reduce university's carbon footprint, e.g. electricity shedding, water protection, waste mitigation (High Impact High Feasibility)

**Metrics for success:** Number of new pilot programs per year

**One-time costs:**

**Recurring costs:** \$50,000/year for 3 years

#### Lever/Category of Action 3.8.9

**Description:** Led by OSE3 initiative in conjunction with University Advancement, create alumni awareness programs and associated funding vehicles to promote our sustainable research and campus initiatives. Funding vehicles: 1: alumni donations and endowments (High Impact Low Feasibility)

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

#### Lever/Category of Action 3.8.10

**Description:** Make investment decisions that promote sustainability. Invest in companies and funds that provide a strong rate of return and that are socially and environmentally responsible. Create committee on investor responsibility. (High Impact Low Feasibility)

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

#### Lever/Category of Action 3.8.11

**Description:** Partner with local schools, hospitals, non-profits and other companies to provide consolidated recycling and waste management services by contract (High Impact Low Feasibility)

**Metrics for success:**

**One-time costs:**

**Recurring costs:**



## Appendix A | Delayed Action Items

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### **Lever/Category of Action 3.8.12**

**Description:** Increase carbon offset investment to aid to S&T's commitment to the ACUPCC climate neutrality goal of a 20% reduction in emissions by 2020 and a 40% reduction in emissions by 2035 relative to our 2010 emissions baseline (Medium Impact Low Feasibility)

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

## Appendix A | Delayed Action Items

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### Lever 4.1

**Description:** Create a comprehensive distance and online education strategy

#### Lever/Category of Actions 4.1.3

**Description:** Create a uniform marketing strategy to raise visibility of distance and online programs

**Metrics for success:** 1) Development of strategy; 2) Increased enrollment

**One-time costs:**

**Recurring costs:**

#### Lever/Category of Actions 4.1.8

**Description:** Hire more NTT and adjunct professors to cover the online teaching needs

**Metrics for success:** Number of faculty

**One-time costs:** \$50,000

**Recurring costs:** \$50,000 x 10%/year increase

#### Lever/Category of Actions 4.1.9

**Description:** Create more online delivery capability in classrooms

**Metrics for success:** Number of classrooms

**One-time costs:** \$100,000

**Recurring costs:** \$100,000

#### Lever/Category of Actions 4.1.10

**Description:** Consolidate and collaborate in delivering graduate and undergraduate engineering degree programs state-wide

**Metrics for success:** 1) Number of programs; 2) Enrollment; 3) Revenue

**One-time costs:** \$200,000

**Recurring costs:** \$200,000

## Appendix A | Delayed Action Items

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### **Lever 4.2**

**Description:** Enhance instructional labs and methods of delivering lab experiences

#### **Lever/Category of Actions 4.2.3**

**Description:** Return science and engineering fees to teaching departments (Impact High Feasibility Medium)

**Metrics for success:** Developed model framework and strategy

**One-time costs:**

**Recurring costs:**

#### **Lever/Category of Action 4.2.4**

**Description:** Deploy Springfield (MSU) cooperative program model throughout the state (Impact High Feasibility Medium)

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

#### **Lever/Category of Actions 4.2.5**

**Description:** Determine how international partnerships and online programs can be marketed and grown in Missouri and elsewhere (Impact High Feasibility Medium)

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

## Appendix A | Delayed Action Items

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### Lever 4.5

**Description:** Engage in transformative doctoral student recruiting/retention and placement

#### Lever/Category of Actions 4.5.2

**Description:** (Recruit) Competitive package - Provide healthcare/childcare benefits for students on appointments (Medium Impact Medium Feasibility)

**Metrics for success:** % increase in doctoral students; retention rate

**One-time costs:**

**Recurring costs:**

#### Lever/Category of Actions 4.5.5

**Description:** (Recruit) Select top OURE students to enroll in graduate school by using senior year tuition coverage as incentive (High Impact Medium Feasibility)

**Metrics for success:** # of OURE students accepting scholarship offer (senior year)

**One-time costs:**

**Recurring costs:**

#### Lever/Category of Actions 4.5.8

**Description:** (Retain) Develop a year-long Graduate Research Scholars Program for all newly admitted doctoral students (much like the new faculty program) (High Impact Medium Feasibility)

**Metrics for success:** Increase in retention; Increase in publications

**One-time costs:**

**Recurring costs:**

#### Lever/Category of Actions 4.5.9

**Description:** (Placement) Develop and implement a plan for a comprehensive graduate division of Career Opportunities and Employment Center (COER) (High Impact Medium Feasibility)

**Metrics for success:** Starting salary of graduate students, Placement rate and type (industry, academia, etc.), internship placement

**One-time costs:**

**Recurring costs:**

### **Lever/Category of Actions 4.5.10**

**Description:** (Placement) Provide mentorship and networking opportunities for students by connecting them to experts in academia/industry/research labs; provide resources to present their research work at national/international conferences (Medium Impact Medium Feasibility)

**Metrics for success:** Number of student connections with outside experts

**One-time costs:**

**Recurring costs:**

### **Lever/Category of Actions 4.5.11**

**Description:** (Recruit) Provide funds to encourage prospective domestic doctoral students to visit campus for one day and/or for a few weeks to work closely with a professor (REU model) (Medium Impact Medium Feasibility)

**Metrics for success:** Number of prospective students visiting campus; Number of prospective students that enroll and return to campus

**One-time costs:**

**Recurring costs:**

### **Lever/Category of Actions 4.5.13**

**Description:** (Recruit) Enhance implementation efforts for high quality international doctoral students (High Impact Medium Feasibility)

**Metrics for success:** # of international doctoral students

**One-time costs:**

**Recurring costs:**

### **Lever/Category of Actions 4.5.14**

**Description:** (Recruit/retain) Implement customized mechanisms to recruit and retain underrepresented and minority (URM) doctoral students at S&T (High Impact Medium Feasibility)

**Metrics for success:** % increase in underrepresented and URM doctoral students

**One-time costs:**

**Recurring costs:**

## Appendix A | Delayed Action Items

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### **Lever/Category of Actions 4.5.15**

**Description:** (Retain) Examine graduate programs and reduce time to degree, where appropriate (High Impact Medium Feasibility)

**Metrics for success:** # of programs examined; measure time to degree per individual degree; Retention rate

**One-time costs:**

**Recurring costs:**

### **Lever/Category of Actions 4.5.17**

**Description:** (Retain) Promote workshops/seminars/social events to encourage more camaraderie and exchange of research ideas among doctoral students from various disciplines (High Impact High Feasibility)

**Metrics for success:**

**One-time costs:**

**Recurring costs:**

### **Lever/Category of Actions 4.5.18**

**Description:** (Recruit) Provide mechanisms for faculty/student exchange with target “feeder” schools (High Impact Medium Feasibility)

**Metrics for success:** Research productivity; # of students exchanges

**One-time costs:**

**Recurring costs:**

### **Lever/Category of Actions 4.5.19**

**Description:** (Recruit) Focus on attracting professional students to consider doctoral studies at S&T (High Impact Medium Feasibility)

**Metrics for success:** Increase in distance education doctoral students; Increase in the number of programs offered via distance mode

**One-time costs:**

**Recurring costs:**

### **Lever/Category of Actions 4.5.20**

**Description:** (Placement) Provide internship/Preparing Future Faculty (PFF) program opportunities for doctoral students at places of potential future employment (High Impact Medium Feasibility)

**Description:**

**Metrics for success:** # of employers participating; # of students participating

**One-time costs:**

**Recurring costs:**

### **Lever/Category of Actions 4.5.21**

**Description:** (Placement) Enhance the GTA training workshop to include training the GTA/GRAs to help future academicians fast track their career with knowledge of pedagogy and research (High Impact Medium Feasibility)

**Metrics for success:** Research productivity; retention rate

**One-time costs:**

**Recurring costs:**

### **Lever/Category of Actions 4.5.21**

**Description:** (Recruit/retain/placement) Implement comprehensive graduate student/program data collection mechanisms, tracking mechanisms (student enquiry thru placement), graduate learning outcome rubrics, etc. to benchmark time-to-degree, doctoral retention, program improvement, timely response to student application/graduation status, and improve graduate student services (High Impact Medium Feasibility)

**Metrics for success:** Graduate dashboard

**One-time costs:**

**Recurring costs:**

## Appendix B | Strategic Actions Completed

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### Lever 1.1

**Description:** Require all undergraduate students to participate in some significant experiential learning activity before graduation

- ☒ 1.1.5 a.: Consult with the Director of Career Opportunities and Employer Relations to explore internship and externship opportunities in the summer and inter-sessions as well as during semesters

### Lever 1.2

**Description:** Foster innovation and creativity for faculty, staff, students and administration

- ☒ 1.2.2 a.: Explore creating a Learning Commons with state-of-the-art collaborative technology, practice presentation rooms, experimental technology lab with video editing and 3D printing capability for teaching, learning, and research. (See Lever 3.9) Training on how to effectively use the commons would be included.

### Lever 2.3

**Description:** Develop a culture of excellence in research, scholarship and creative activity among faculty, staff and students

- ☒ 2.3.4 a.: Establish two new sustainable industry-funded research consortia

### Lever 2.4

**Description:** Create and implement a communication and marketing plan to raise the visibility of the campus and convey our return on investment

- ☒ 2.4.1 a.: Establish a Marketing Leadership Team to guide development of an integrated, campuswide communications and marketing plan.
- ☒ 2.4.2 a.: Establish a Core Marketing Network to provide consultation to the Marketing Leadership Team to establish an integrated, campuswide communications and marketing plan.
- ☒ 2.4.3 a.: Through the Marketing Leadership Team and Core Marketing Network, develop a request for proposals for professional marketing consultation to a.) conduct a needs assessment regarding the desired outcome of an integrated, campuswide communications and marketing plan; b.) conduct a capabilities assessment to determine our ability and readiness to conduct such a campaign (the capabilities assessment will include a communications audit of all marketing materials and assessment of any marketing research).
- ☒ 2.4.10: The Marketing Leadership Team, in consultation with the Core Marketing Network, will identify no fewer than three higher education institutions who are considered best in class in terms of communicating return on investment and will examine these institutions' practices. Funding may be required for travel and on-site visits



## Appendix B | Strategic Actions Completed

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### Lever 2.7

**Description:** Address administrative structural changes to facilitate strategy and enhance national visibility

- ☒ 2.7.2: Hire Strategic Planning Progress Manager (SPPM)

### Lever 3.1

**Description:** Evaluate current academic programs and create, modify, eliminate or combine in order to ensure a relevant portfolio that supports a Carnegie ranking as a national research university

- ☒ 3.1.1 a.: Perform a comparison of academic department productivity to peer institutions (See Actions 2.3.1 and 1.3.1)

### Lever 3.2

**Description:** Centralize corporate relations to improve service to existing partners and to identify and establish new partnerships for the purpose of increasing/enhancing research, economic development, credit and non-credit education, philanthropy, and the hiring of our graduates

- ☒ 3.2.2: Determine the reporting structure of the office within S&T
- ☒ 3.2.4: Determine the internal organizational structure of the office (title of leadership, professional staff and support staff)
- ☒ 3.2.5: Develop a plan to create campus awareness of the role to be played by the office while clearly identifying responsibilities

### Lever 3.3

**Description:** Improve facilities to enhance research and student learning, and expand experiential learning

- ☒ 3.3.2 a.: Explore a plan and process for acquiring matching funding for research equipment in areas that have high return on investment to be matched with non-appropriated funds
- ☒ 3.3.4 a.: Evaluate all campus facilities for their readiness for sustainable growth and return on investment by engaging a campus master planning consultant
- ☒ 3.3.6 a: Investigate the feasibility of establishing a \$20 million endowment for the maintenance of (teaching, research, and co-curricular) equipment (See Lever 3.9)
- ☒ 3.3.7: Investigate building a Learning Commons (e.g., in Library) to enhance student learning and research. This facility should allow for reconfiguration as needs change, technologies evolve, and the student population changes. It should include as much hands-on technology as possible, available to all, in an interdisciplinary environment. (See Action 1.2.1)
- ☒ 3.3.8: Investigate the feasibility of establishing a \$100 million endowment for the acquisition of (teaching, research, and co-curricular) equipment. (See Lever 3.9)

## Appendix B | Strategic Actions Completed

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### Lever 3.9

**Description:** Conduct a comprehensive fundraising campaign to secure private support for identified campus priorities

- 3.9.1: Conduct wealth screening and data validation
- 3.9.2: Initiate partnership with consulting/research firm
- 3.9.3: Review, update and approve gift acceptance policy
- 3.9.5: Develop campaign timeline with associated milestones
- 3.9.6: Develop plan and proposal for staffing requirements
- 3.9.7: Conduct feasibility study
- 3.9.8: Participate in process to update campus master plan to advise on fundraising opportunities and targets

### Lever 4.5

**Description:** Engage in transformative doctoral student recruiting/retention and placement

- 4.5.16: (Retain) Perform cost analysis on providing dissertation writing fellowships to doctoral students who have completed their comprehensive exams

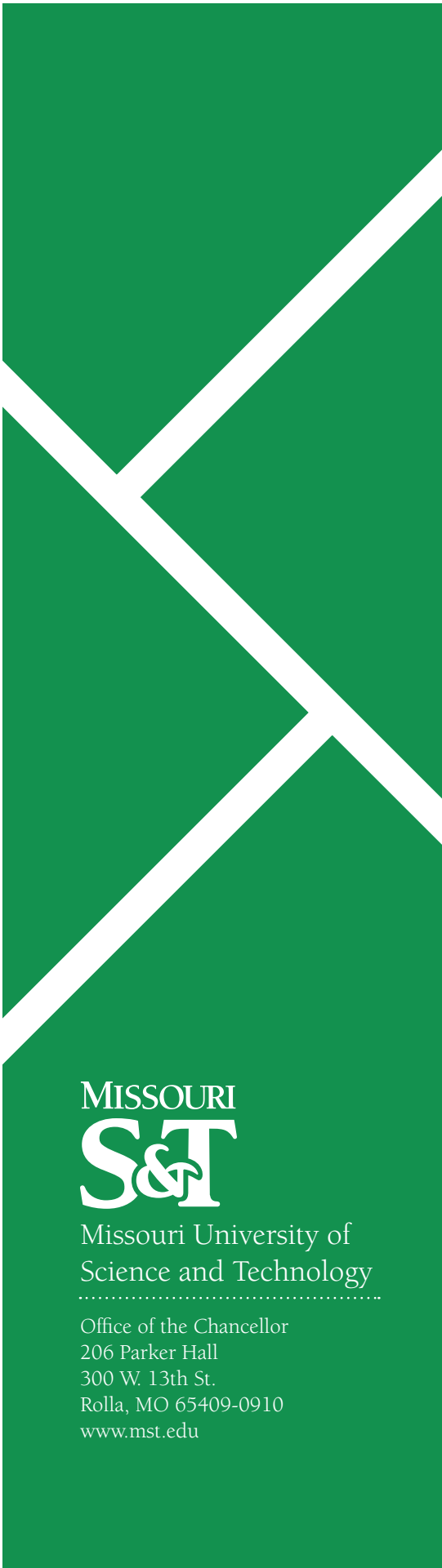
## Appendix C | Strategic Planning Lever Leaders

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### Strategic Planning Lever Leaders

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1.1	Jeff Cawfield	2.4	Andrew Careaga	3.8	Phil Whitefield
1.2	Debra Robinson and Nancy Stone	2.5	Henry Wiebe	3.9	Joan Nesbitt
1.3	Jeff Cawfield and Larry Gragg	2.7	Shenethia Manuel	4.1	Henry Wiebe
2.1	K. Krishnamurthy and Jim Drallmeier	3.1	Kelvin Erickson	4.2	Kelvin Erickson and Klaus Woelk
2.2	Kent Wray	3.2	Henry Wiebe and Edna Grover-Bisker	4.5	Venkata Allada
2.3	K. Krishnamurthy and Jim Drallmeier	3.3	Phil Whitefield and Ted Ruth		
		3.4	Laura Stoll and Shenethia Manuel		
		3.5	Joan Nesbitt and Jim Murphy		



## **Rising to the Challenge:** Missouri S&T's Strategy for Success



Missouri University of  
Science and Technology

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