1. Introduction to the Strategic Initiatives and Overview of the Process

In 2012, Texas State University became one of the state’s eight Emerging Research Universities, a designation that allows the university to benefit from targeted state funds that help nurture and expand research activities.

In 2015, Texas State’s research budget had grown to almost $48 million. On February 1, 2016, Texas State officially was reclassified as a “Doctoral University with Higher Research Activity” under the Carnegie Classification of Institutions of Higher Education system.

As the second-highest level for universities in the country under this highly regarded classification system, it is two levels higher than the designation Texas State had when it was last classified in 2010.

The Science, Technology and Advanced Research (STAR) Park is a 58-acre research park that is part of Texas State University. Five miles south of the campus in San Marcos, STAR Park is a place where research, product development, innovation, and business incubation occurs, allowing the university to partner with promising technology commercialization opportunities.

The STAR One technology incubator/collaboration facility has undergone two expansions since its opening in November 2012, increasing in size from 14,000 to 36,000 square feet. STAR One is relatively unique in the Austin-San Antonio corridor, offering laboratory space supporting the commercialization of tangible products. Current activities include development of new materials, renewable energy platforms, medical diagnostics, and integration of novel nanomaterials.

Over the past three years STAR One clients have raised in excess of $27 million through new equity investments and strategic alliances positioning themselves for continued rapid growth. In aggregate, current STAR One client firms have provided over $1.2 million in funded collaborative research with Texas State and hired over two dozen current students and recent graduates as full time employees or paid interns.

Situated in the Austin-San Antonio I-35 corridor with tremendous workforce, creative, technical, financial, cultural, civic, and corporate assets, Texas State and STAR Park are poised to become a regional hub for innovation and discovery.

Background and Purpose of the Document

This strategic plan is intended to lead to the adoption of a vision for the role and mission of STAR Park and operating strategies that ensure relevance of the park to the university’s stated goal of becoming eligible for distributions from the National Research University Fund within the next decade. STAR Park is an increasingly attractive location for technology and innovation focused firms seeking to establish a mutually beneficial relationship with Texas State and this plan articulates a path toward enhancing existing and developing new partnerships.
Definitions

Creating the strategic plan involved defining a mission, vision, and goals, along with supporting documents. This document includes the following four elements:

1. **Mission** – the mission of STAR Park, as an entity within Texas State University.
2. **Vision** – where STAR Park should be in the future.
3. **Goals** – measurable and achievable benchmarks for reaching the vision.
4. **Supporting Documents (Appendices 1 and 2)**

Process

The process for development of a strategic plan for STAR Park was launched in March 2015, at an interactive session with the Council of Academic Deans (CAD). Over the next sixty days one on one conversations were held with college deans resulting in the creation of a consensus that the role of STAR Park needed to evolve beyond its roots as an outgrowth of existing materials science initiatives and into a set of assets reflecting a broader range of new and emerging opportunities. Special emphasis was placed upon interdisciplinary and multi-disciplinary activities.

Identified existing and emerging opportunities for STAR Park involvement included the following: materials science, life science, advanced manufacturing, software platform development, renewable energy production and systems, civil/environmental engineering, and disciplines involved with the development and deployment of components constituting the Internet of Things.

Future opportunities were identified as encompassing the following: development of advance GIS/geospatial tools, computer engineering, computer science, research computing tools, water and the environment, advanced educational tools, virtual reality tools, management tools for healthcare delivery and management, smart infrastructure design and materials development, nutrition, and the proposed Materials Application Research Center (renamed and submitted as an Exceptional Item request to the 85th Texas Legislature).

An early outcome of the conversations with CAD was the development of the STAR SEEK (Students Engaged in Entrepreneurial Knowledge) graduate student startup program. Co-sponsored by the Graduate College, MSEC PhD Program of the College of Science & Engineering, McCoy School of Business Administration, Office of Research & Federal Relations, and STAR Park, STAR SEEK was launched as a pilot program in the 2015-16 academic year. Three teams of students selected through a competitive process were provided one year of free space in STAR One, a faculty advisor through enrollment in MSEC 7304, access to outside mentors, and a startup package of up to $15,000 per team.

In February 2016, a 27-member advisory group was formed following review and approval by senior administrators and the president to further guide the STAR Park Strategic Plan process. Each of the academic colleges were represented as well as key university units directly involved with supporting research and outreach activities associated with innovation, commercialization, and entrepreneurship.
Community members were recruited from Austin, San Antonio, and Hays County, along with representatives of key potential industry partners. A full roster is provided as Appendix 1.

In 2016, the Advisory Group participated in a series of four workshops designed to engage it in learning about existing best practices in university research parks and to develop ideas and discuss opportunities for the future of STAR Park itself. Key thought leaders from the Austin – San Antonio Corridor provided an asset scan for the region. Leadership from the University of Wisconsin, Purdue University and The University Finance Foundation provided a broader context of the elements essential to the evolution of best practices amongst university related research parks. This group produced a report, which a) proposed a vision for the role of STAR Park in furthering the University’s mission; b) informed the new University Strategic Plan, currently being drafted; and c) became incorporated into the current campus master planning process by producing general guidelines for master planning at STAR Park.

This strategic plan resulted from all these activities.

2. STAR Park Mission

STAR Park serves as a catalyst for collaboration supporting Texas State’s goal of becoming eligible for distributions from the National Research University Fund by growing the regional ecosystem through activities promoting and supporting innovation, commercialization, and entrepreneurship.

3. Vision and Goals for Growth of STAR Park

Vision

In order to achieve its mission, STAR Park needs to set a vision of its future to guide goal setting.

The themes for this Vision statement evolved gradually through the planning process before being distilled into the following statement:

“STAR Park will be a critical hub for innovation, commercialization and entrepreneurial activity for Texas State and the region, with a responsive governance structure that fosters collaboration, epitomizes sustainability in its funding and operations, and creates an inspirational environment through a sense of place.”

Goals

Goals established by this vision are:

**Entrepreneurial:** Foster an entrepreneurial ecosystem

- Create programs, policies and physical assets, which support a dynamic innovation, commercialization, and entrepreneurial ecosystem reflecting university-wide strategic directions for research growth and increased outreach.
Responsive: Operate in a flexible and responsive manner

- Be timely, responsive and action-oriented in decision-making, client interactions, facilities development, management and operations. Create programs and physical assets that are adaptable and resilient to change.

Collaborative: Promote accessibility, social interaction and community

- Be open and flexible to university and non-university enterprises that benefit the university and reflect strategic research directions established through the Texas State University Strategic Plan. Create a culture of social and professional interactions.

Inspirational: Build a sense of place that reflects the entrepreneurial nature of STAR Park through a physical Master Plan

- Set design guidelines to form a sustainable, dense, walkable STAR Park with spaces for social interaction. Be context-aware in development scale, massing, and integration of an inspirational design aesthetic.

Sustainable: Achieve self-sustaining innovation

- Foster innovative processes that allow STAR Park to be open to a wide variety of funding sources to support long-term success.

4. Programmatic Priorities of the Strategic Plan

The following key areas were identified through this strategic planning process and form the basis for recommending further, more detailed investigation, in some cases.

Program Development

Entrepreneurialism rarely happens in a vacuum. Rather, it is the larger ecosystem of economic, education, policy, facilities, and people that makes it possible. As such, there is a need to create an infrastructure of programs, policies, and physical assets that support and actively encourage entrepreneurial behavior.

In order to fully support the innovation, commercialization, and entrepreneurial potential of STAR Park, there needs to be strong integration across a broad range of programs within the university. This integration will need to be supported by programmed activities for park users and open collaboration with partnering companies.

Immediate areas of program development should focus upon the following:

- Material science including nanomaterials and advanced polymers
- Life science related activities including diagnostics, drug delivery, drug design, medical devices, innovations supported enhanced delivery of services incorporated in the health professions
- Advanced manufacturing including prototype design, product development and processes
• Software platform development
• Renewable energy production and systems management
• Civil/environmental engineering
• Development and deployment of components enabling the Internet of Things
• Entrepreneurship program development which fosters and strengthens the regional ecosystem by incorporating activities at Texas State University and STAR Park

Emerging areas of program development should focus upon the following:

• Advanced GIS/geospatial tools
• Computer engineering
• Computer science
• Research computing tools
• Water and the environment
• Advanced educational tools
• Virtual reality tools
• Management tools for healthcare delivery and management
• Smart infrastructure design and materials development
• Nutrition

Future Planning Tasks:

• Recommendations for university-wide innovation, commercialization, and entrepreneurial program development
• Process and forum development for timely and responsive identification and approval of new opportunities as they arise over time
• Identify program development metrics to monitor and review
• Identify methods of broadcasting success and generating interest
• Identify process/role for activities program development at STAR Park
• Consider brand development/concept: broad program spectrum of innovation

5. STAR Park Master Plan

Creating a Master Plan for STAR Park during this 2017-2023 planning cycle is an important goal. Through the discussion of best practices evidenced by successful research parks, it emerged that creation of a Master Plan reflecting STAR Park’s mission and goals was essential. Research parks serve the role of catalyst for leveraging university and partner collaborations rather than a real estate driven activity.
6. **STAR Park Management Plan and Operational Guidelines**

Developing and implementing a management structure and operational guidelines are two more goals for the 2017-2023 plan.

- Identify metrics and timeline for review and improvement to Project Review Process.
- The group should propose methods for ongoing maintenance and upkeep to individual sites and common areas.

Additional information regarding master structure options and operational guidelines are found in supporting documents.

7. **Summary and Next Steps**

The following next steps have been identified to implement the Strategic Plan recommendations.

1. Review recommendations with senior university administration;
2. Form a working group to act in an advisory capacity to the VP for Finance and Support Services and consultant preparing the physical Master Plan for STAR Park; have a goal of completion of the Master Plan elements by November, 2016;
3. Form a working group by December 2016 to lead discussion and development of programming recommendations reflected in the identified existing, emerging, and future areas of university opportunity which incorporate elements of innovation, commercialization, and entrepreneurship;
4. Form a working group to develop recommendations concerning the optimal management structure for STAR Park within the context of ultimate university ownership with such recommendations provided to the senior university administration by March, 2017; and,
5. Incorporate recommendations that are adopted into the new University Plan for 2017 – 2023.
Appendix I

Advisory Group Participants

UNIVERSITY REPRESENTATIVES – At large:

- Bill Covington, Chief Research Officer
- Laura Kilcrease, Director, Center for Entrepreneurial Action, McCoy College of Business Administration
- Tom Myers, Director, Industry Engagement and Innovation, Office of Research; Associate Dean, College of Science and Engineering
- Stephen Frayser, Executive Director, STAR Park
- Reddy Venumbaka, Director, Office of Commercialization
- Stan McClellan, Director and Professor, Ingram School of Engineering, College of Science and Engineering
- Nancy Nusbaum, Associate VP Planning, Finance and Support Services
- Bill Rampy, Special Assistant to the VP, IT/Libraries

UNIVERSITY REPRESENTATIVES – Colleges:

- Reed Richardson, Professor, Department of Agriculture, College of Applied Arts
- Lisa Lloyd, Professor, Department of Health and Human Performance, College of Education
- Kelly Kaufhold, Assistant Professor, Digital Media, College of Fine Arts and Communications
- Chris Russian, Associate Professor, Department of Respiratory Care, College of Health Professions
- Britt Bousman, Professor, Department of Anthropology, College of Liberal Arts
- Bill Chittenden, Associate Professor, McCoy College of Business Administration

COMMUNITY REPRESENTATIVES

- David Anderson, Private Consultant
- Adriana Cruz, President, Greater San Marcos Partnership
- York Duncan, President, Texas Research and Technology Foundation
- Peter French, Freeflow Research
- Harvey Frye, Chairman Quantum Interface and retired Chairman Tokyo Electron
- Lee Graham, President, Mensor Corp.
- Tom Kowalski, President, Texas Healthcare and Biosciences Council
- Jared Miller, City Manager, City of San Marcos
- Pike Powers, Private Consultant
- Patrick Rose, Corridor Title/Greater San Marcos Partnership
- Michele Skelding, Senior VP Global Technology and Innovation, Austin Chamber of Commerce
- George Steinke, Entrepreneur in Resident, Texas State University
I. Introduction

State your administrative department/unit/division mission statement.

STAR Park serves as a catalyst for collaboration supporting Texas State’s goal of becoming eligible for distributions from the National Research University Fund by growing the regional ecosystem through activities promoting and supporting innovation, commercialization, and entrepreneurship.

Outline briefly your “vision” for the 2012-2017 planning cycle.

STAR Park will be a critical hub for innovation, commercialization and entrepreneurial activity for Texas State and the region, with a responsive governance structure that fosters collaboration, epitomizes sustainability in its funding and operations, and creates an inspirational environment through a sense of place.
Using University goals and initiatives as a guide, list and briefly describe your top five priorities for the 2012-2017 planning cycle and indicate the university initiative/goal to which the unit’s initiative is linked.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Details</th>
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<tbody>
<tr>
<td>1. Develop programming recommendations reflecting existing, emerging and future areas of university opportunity incorporating elements of innovation, commercialization and entrepreneurship</td>
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<tr>
<td>2. Create a physical master plan that reflects the mission and vision for STAR Park to be incorporated into the 2017-2023 university master plan</td>
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<tr>
<td>3. Develop recommendations concerning optimal management plan and operational guidelines</td>
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<tr>
<td>4. Incorporate overall recommendations into the new university master plan for 2017-2023</td>
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Based on unit goals, list the number of **new (not replacement) staff lines** you plan to request in the 2012-2013 fiscal year and in the remaining 2-5 years.

None
Based on unit initiatives outlined in your plan, estimate the total amount of new funding that your unit will realistically need in the 2012-2013 fiscal year and in the remaining 2-5 years.

None beyond the Exceptional Item request of approximately $2.5M per year through FY19 which will be shared with the MSEC program.

State the facilities (e.g. offices, work space) that will be required for anticipated growth and new initiatives.

1. New multi-tenant research and collaboration building to support the first generation of graduates of the STAR One technology business incubator and to serve as an attractor of additional companies seeking collaboration opportunities with Texas State (estimated 60-70,000 gross square feet).
2. New large structures testing laboratory and associated facilities to support SMART infrastructure research, design, prototyping, testing and analytical services as part of the Ingram School of Engineering.
II. Process

Describe, in a brief paragraph, the process used to develop your plan, including the nature and extent of staff involvement.

Development of a strategic plan for STAR Park was launched in March, 2015 at an interactive session with the Council of Academic Deans followed up over the next 60 days by one on one interactions with individual Colleges (one unexpected outcome was the launching of the STAR SEEK graduate student entrepreneurship program due to leadership from the Graduate College). A 27-person Advisory Committee was recruited with representation from all six academic Colleges, Office of Research (AVPR, Dir. Industry Engagement & Innovation, Dir. Office of Commercialization), Ingram School, AVP Planning, Finance & Support Services, and Special Assist. VP for IT/Libraries. Regional community and business leadership represented key regional industry segments, San Marcos, Austin and San Antonio. Leadership from the University of Wisconsin-Madison, Purdue University and The University Finance Foundation participated in a series of 4 workshops held from February - April, 2016 providing examples of best practices in research parks and their role in fostering regional innovation, commercialization and entrepreneurship. The firm of Perkins & Will was used to moderate the workshops and develop preliminary recommendations.
### III. Program Maintenance

<table>
<thead>
<tr>
<th>Maintenance Need</th>
<th>Reason for Need</th>
<th>Cost</th>
<th>Result of Funding</th>
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<tbody>
<tr>
<td>Multi-tenant building</td>
<td>Accommodate graduates of STAR One incubator</td>
<td>$25-30M</td>
<td>Est. 75 new private sector jobs and increased investment supporting growth in number of Texas State graduates hired, paid student employment opportunities, industry funded research and opportunities for faculty interaction.</td>
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### IV. Planning Categories

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Initiative</th>
<th>1 yr</th>
<th>2-5 years</th>
<th>New Resources Required</th>
<th>Cost</th>
<th>Source of Resources</th>
<th>Assessment Criteria</th>
<th>University Initiative</th>
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<tbody>
<tr>
<td></td>
<td>University Goal 1: Promote academic quality by building and supporting a distinguished faculty.</td>
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<td>Goal 2: Provide opportunities for a public university education and contribute to economic and cultural development.</td>
<td>Dev. Programs to optimize innovation, commercialization and entrepreneurship</td>
<td>x</td>
<td>x</td>
<td>TBD</td>
<td>TBD</td>
<td>E&amp;G, Income Generating Accounts</td>
<td>1.4, 1.6, 1.10, 2.2, Research Strategic Plan IV-A.3</td>
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<td></td>
<td>Develop master plan reflecting mission and goals</td>
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<td>TBD</td>
<td>TBD</td>
<td>E&amp;G, Income Gen. Accounts</td>
<td>1.4, 1.6, 1.10, 2.2, 5.5, Res. Strategic Plan IV-A.3</td>
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<td></td>
<td>Dev. Management Plan &amp; Oper. Guidelines</td>
<td>x</td>
<td></td>
<td>TBD</td>
<td>TBD</td>
<td>E&amp;G, Income Gen. Accounts</td>
<td>1.4, 1.6, 1.10, 2.2</td>
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<td>Goal 3: Provide a premier student-centered, educational experience that fosters retention and success.</td>
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<td>Goal 4: Enrich our learning and working environment by attracting and supporting a more diverse faculty, staff, and student body.</td>
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<td>Goal 5: Develop and manage human, financial, physical and technological resources effectively, efficiently, and ethically to support the university’s mission.</td>
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