Susan Davenport
President/CEO

INVEST BRAZOS VALLEY

BRAZOS VALLEY
ECONOMIC DEVELOPMENT
CORPORATION

November 8, 2023

Brazos Valley Economic Development Corporation

The BVEDC is a public-private partnership representing major stakeholders in the College Station-Bryan MSA.
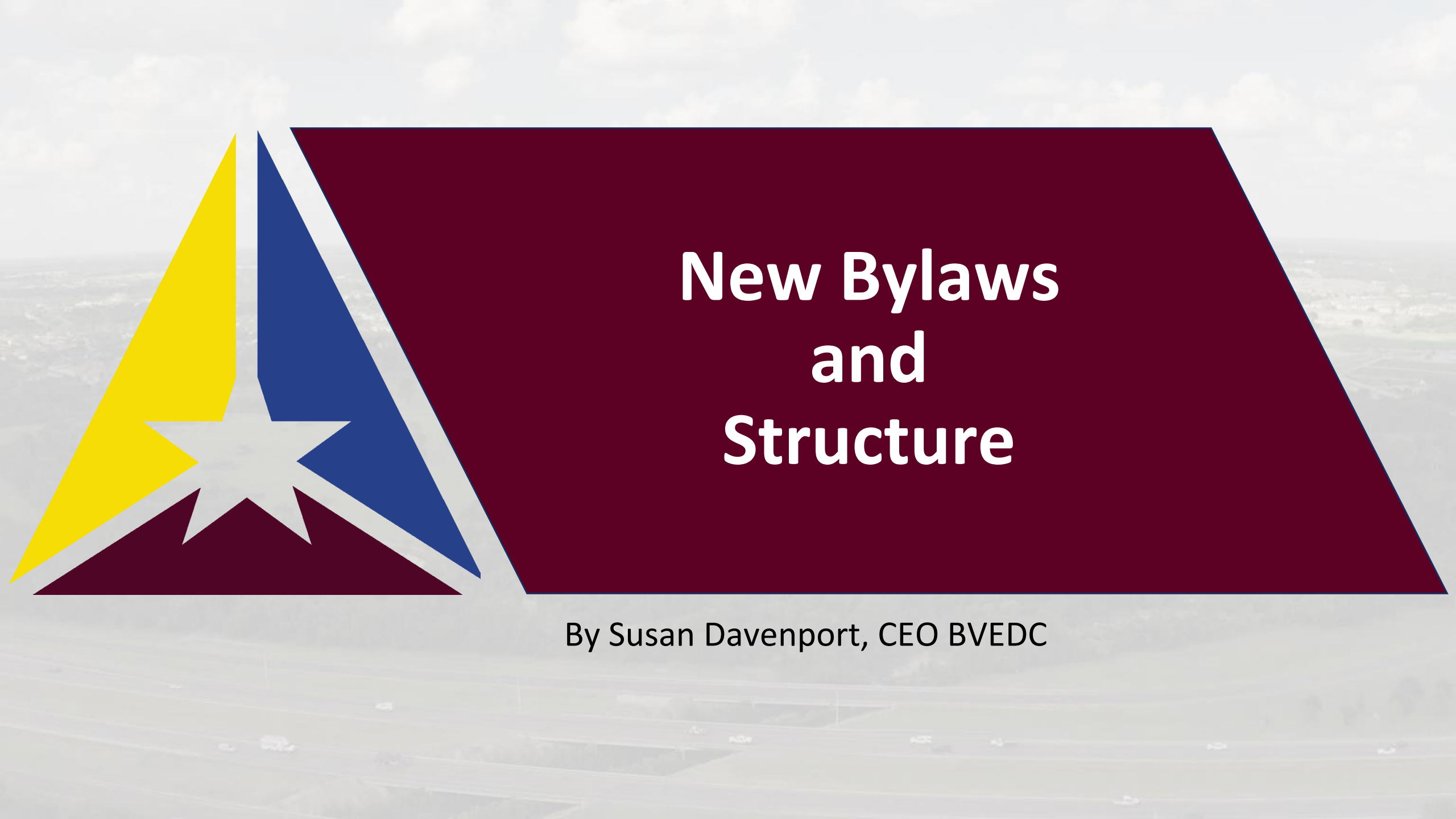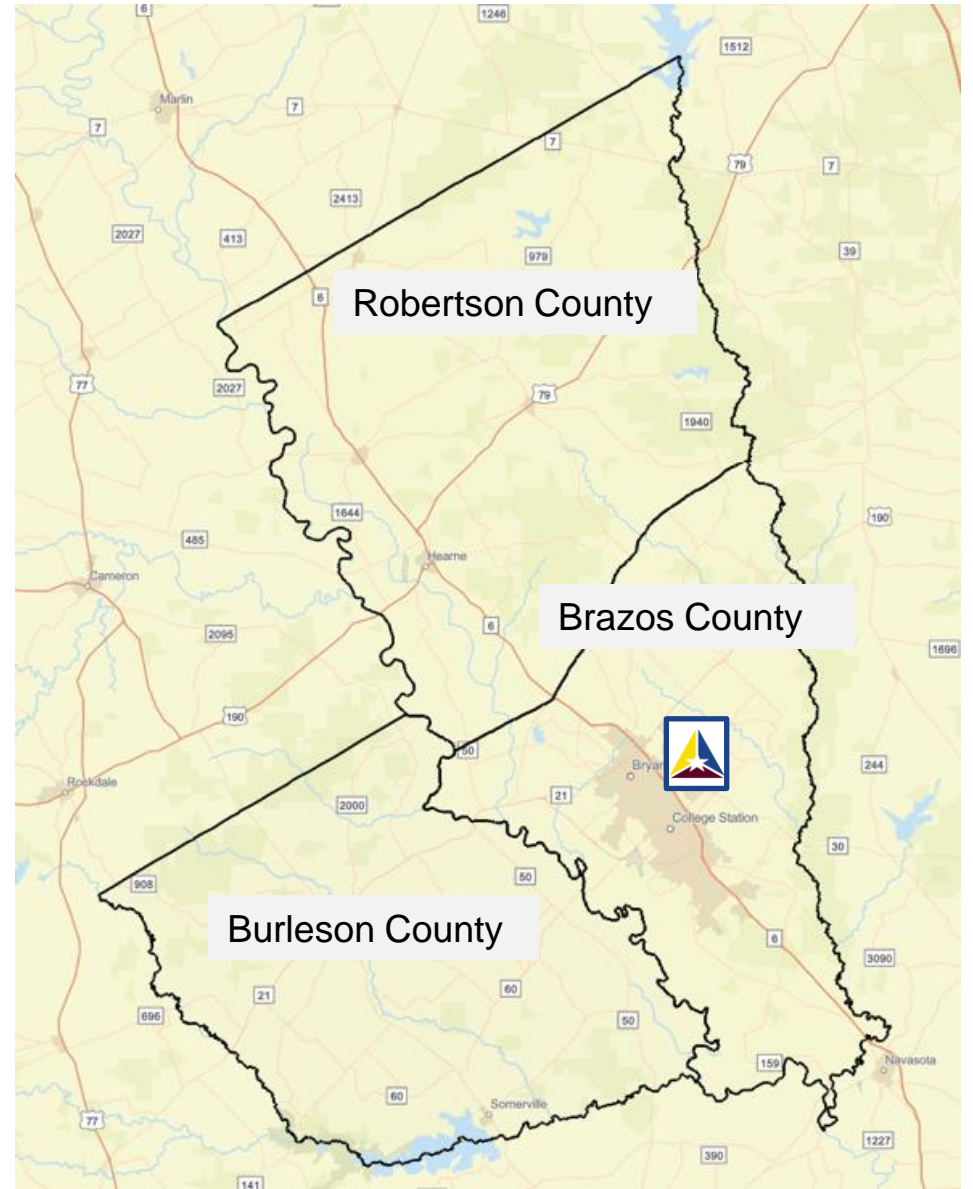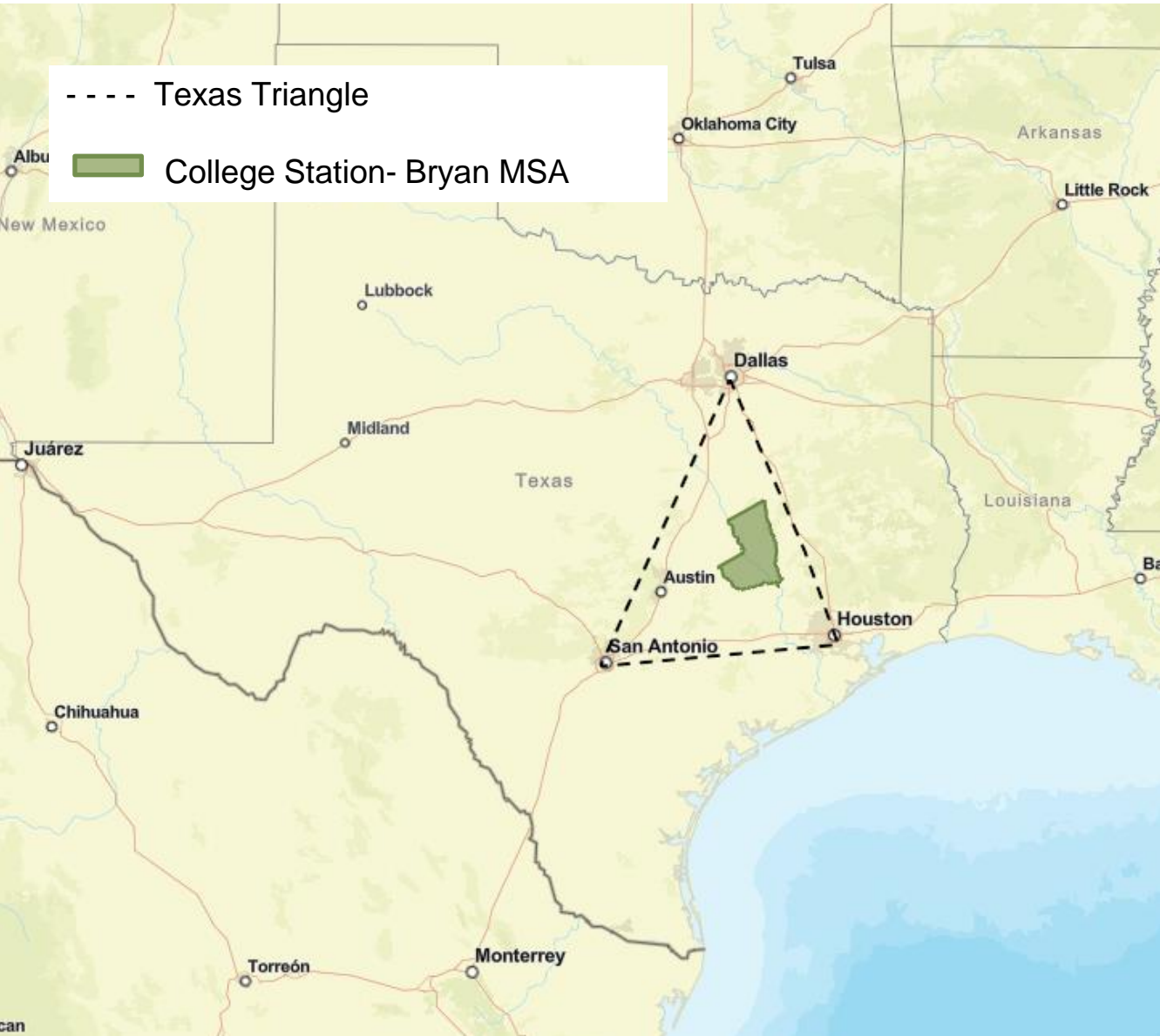
Bryan-College Station MSA

Bryan/College Station Cooperation

New Bylaws and Structure

By Susan Davenport, CEO BVEDC

July 2023 Brazos Valley EDC Structural Changes

NEW

Amended and Restated Bylaws

NEW

Executive Board with 13 Voting members and a General Counsel

NEW

Advisory Board - non-voting, advisory group

1. Meets once a quarter with the new Executive Board
2. All Leadership Council IBV Investor companies will have one representative
3. Approximately 65 members in total

NEW

Board has two, board-level committees defined in the bylaws:

- ❖ Finance Committee
- ❖ Nominating Committee

FY 2023 – 2024 Board of Directors

John Nichols
Mayor
College Station, Texas

Bobby Gutierrez
Mayor
Bryan, Texas

Duane Peters
Judge
Brazos County

Katherine Kleeman
Chair

Spencer Clements
Chair-Elect

Susan Davenport
President & CEO
BVEDC

Jason Jennings
Advisory Chair

FY 2023 – 2024 Board of Directors
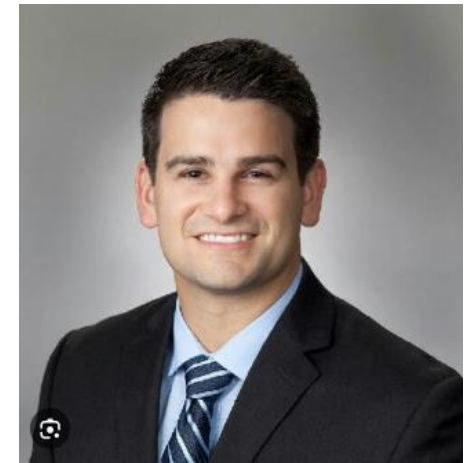
Greg Hartman
Texas A&M

Jeremy Osborne
City of College Station

Seth McKinney
Immediate Past Chair

Clint Cooper
Former Chair

Brandon Sears
Treasurer

Ryan Becker
General Council

Invest Brazos Valley

INVEST BRAZOS VALLEY

86 Regional Corporate Investors

Committed to building a next-generation community in the Brazos Valley

IBV Program Enhancement

Enhanced Membership Recruitment

CEO/Corporate Receptions for newly announced corporate relocations/expansions

Enhanced Regional Data Set

Updated Website with ongoing newsfeed and enhanced investor spotlight

IBV FY2024 Committees with Quarterly reports delivered at IBV Breakfast Briefings

Keynote Speaker for Quarterly Meetings

1. Real Estate
2. Transportation
3. Marketing
4. Quality of Life

FY24 Marketing Mission Participation

Trade Show Participation

Trade Shows include BIO / SEMI/ Energy Transition Opportunities

1. West Coast
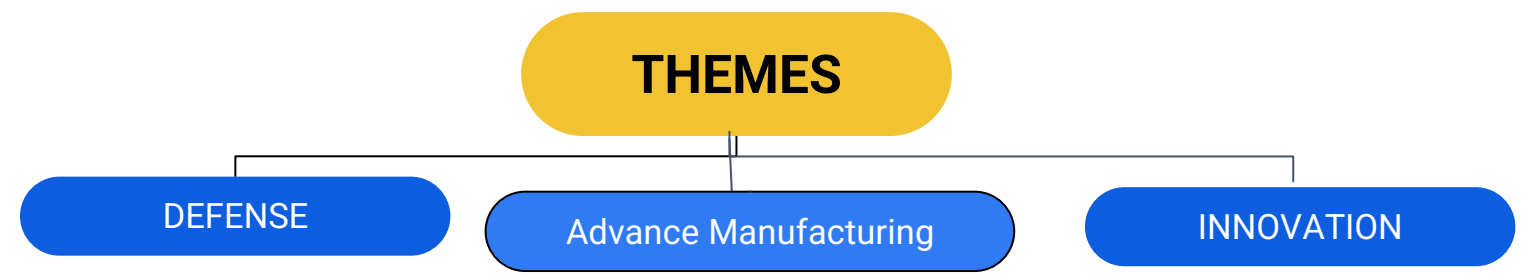2. East Coast
3. Chicago
4. Japan

FY24 STRATEGIC DIRECTION

FOCUS:

New Business Attraction

Business Retention & Expansion

Innovation Ecosystem

THEMES

| DEFENSE | Advance Manufacturing | INNOVATION |

Target Industry Sectors

Life Science	Semiconductors	Energy Transition	Professional Service	Aerospace
		Alternative Energy		
Animal	Research and Development	Research and Development	HQ - Domestic & Intl Companies	
Plant	Advanced Manufacturing	Advanced Manufacturing	Digital Technology	
Human		Testing	Product Development	

METRICS

➢ Enhanced Regional Gross Domestic Product (GDP)
➢ New Primary Jobs
➢ New Capital Investment

Q&A/Discussion

Thank You

Presentation Purpose & Outline of Discussion Topics

TEXAS A&M UNIVERSITY
Division of Research

- **Purpose**
  - ✓ Review (what is our approach)
  - ✓ Inform & request your engagement (shared impact)

- **Discussion Topics**
  - ✓ Provost organization
  - ✓ Research Enterprise Strategic Plan
  - ✓ Division of Research
    - Internal programs
    - Centers & Institutes
    - Working Groups
    - Initiatives (Other)

FY24 DOR Philosophy

- Stakeholder success

- Service oriented

- Transparency

- Improve efficiencies by providing DOR unit leads with resources, autonomy, and accountability to achieve objectives

- Maximize productivity and impact

- Provide flexibility and ability to adapt/respond to change

- Ensure competitiveness for available resources

DOR Critical Thinking

- How does the proposed deliverable contribute to achieving our mission?
- What impact will the proposed deliverable have on the university, state, nation?
- Are we meeting the needs of our stakeholders?
- Are we competitive as a service provider?
- Is the quality of our products high?
- Are there administrative burdens that can be eliminated?
- Have new approaches/models been explored to attain the proposed deliverables?
- Are there cross unit redundancies that can be streamlined?
- How do we measure success?

Division of Research

Office of the Provost

The Vice President for Research (VPR) position will retain the Vice President title and report to the EVP and Provost with a "dotted Line" to the President.

Lead: Alan Sams
Deadline: 1 December 2023
Status : Completed on 1 November 2023

- Enhanced opportunities for communications/collaborations

RESEARCH ENTERPRISE STRATEGIC PLAN

TEXAS A&M | UNIVERSITY

2023-2030

https://vpr.tamu.edu/

DRAFT

TEXAS A&M UNIVERSITY

RESEARCH ENTERPRISE STRATEGIC PLAN
2023-2030

Strategic Research
THEMES AND SUB-THEMES

Texas A&M University's Research Enterprise Strategic Plan for 2023-2030 identifies six strategic research themes and 21 sub-themes that leverage Texas A&M's strengths, capacity and capabilities across multiple disciplines. These themes and sub-themes provide opportunities for Texas A&M to i) strengthen its tripartite mission of research, teaching and outreach; ii) advance research excellence and scholarship through collaborations; iii) address state, national and global challenges; iv) deliver significant societal impact; and v) elevate Texas A&M's status and ranking as a global research leader.

In addition, the themes align with the national and global research-and-development agenda and priorities of key federal research-and-development funding agencies—including Department of Defense and its Defense Advanced Research Projects Agency, National Institutes of Health, Department of Energy and its National Laboratories, National Aeronautics and Space Administration, National Science Foundation, Department of Agriculture, Department of Commerce and Department of Education—and the Texas Legislature.

Strategic initiatives that center around the research themes/sub-themes will be defined and developed, in consultation with the research enterprise community and stakeholders.

COMMUNITY, CULTURE AND ECONOMIC RESILIENCE
- Arts Ecosystem and Culture
- Human Development and Social Dynamics
- Workforce and Future of Work

EMERGING TECHNOLOGIES AND INNOVATIONS
- Artificial Intelligence, Learning and Autonomy
- Biotechnology and Biomanufacturing
- Data, Visualization and Information Technologies
- Microelectronics and Semiconductors
- Quantum Science and Technology

HEALTH AND QUALIFY OF LIFE
- Diagnostics, Treatments, Intervention and Cures
- Disease Prevention and Health Promotion
- Health Disparities and Community Health

NATIONAL SECURITY
- Biodefense and Biosecurity
- Cybersecurity
- Nuclear Security
- Advanced National Security Technologies

SPACE EXPLORATION
- Human Space Flight
- Space Engineering and Construction
- Earth and Planetary Sciences

SUSTAINABILITY AND ENVIRONMENT
- Climate Resilience and Mitigation
- Energy Transition/Clean Energy
- Food-Energy-Water (FEW) Nexus

RESEARCH ENTERPRISE STRATEGIC PLAN 2023-2030

Research Theme 5
SPACE EXPLORATION

The Texas A&M University *research enterprise* encompasses all elements that come together to address critical research needs (basic, applied or translational) including all stakeholders, resources and infrastructure. Delivering outcomes and results that promote knowledge growth and solve or prevent challenges for the public good are the basis for the research enterprise strategic plan.

SUB-THEMES

▶ HUMAN SPACE FLIGHT

Examples of Research Areas of Strength/Opportunity within Texas A&M
Human factors and behavioral performance, human health countermeasures, space radiation, exploration medical capability, research operations and integration, food/ nutrition, space humanities

Alignment with National and Texas Legislative Priorities
NASA, DOC, AFOSR, CHIPS ACTS, NATIONAL LABS

Texas A&M Capacity (Initial Mapping of Alignment with Colleges, Schools, Agencies and *Centers/Institutes/Core Facilities*)
HSC (SoM, SoN, SoP, SPH), TEES (COE), CAS, AGLR (COALS), SEHD, PVFA, BUSH

▶ SPACE ENGINEERING AND CONSTRUCTION

Examples of Research Areas of Strength/Opportunity within Texas A&M
Aerospace power and energy storage; robotics, sensors, and autonomous systems; robotics space flight; materials and manufacturing; space food systems

Alignment with National and Texas Legislative Priorities
DOD, NASA, DOE, DARPA, AFOSR, CHIPS ACT, SBIR/STTR, MULTI-AGENCY R&D

Texas A&M Capacity (Initial Mapping of Alignment with Colleges, Schools, Agencies and *Centers/Institutes/Core Facilities*)
TEES (COE), CAS, SOA, PVFA, AGLR (COALS), *CI*

▶ EARTH AND PLANETARY SCIENCES

Examples of Research Areas of Strength/Opportunity within Texas A&M
Earth science, astrophysics, astrobiology, planetary science, exoplanets, space domain awareness, remote communications, asteroid detection and deflection

Alignment with National and Texas Legislative Priorities
NASA, DOC, DOD, AFOSR, CHIPS ACT, NATIONAL SECURITY, NATIONAL LABS

Texas A&M Capacity (Initial Mapping of Alignment with Colleges, Schools, Agencies and *Centers/Institutes/Core Facilities*)
CAS, TEES (COE), LAW, IQSE, *CI*

Strategic Planning; ad hoc committee

- Meetings held 27 July to identify potential strategic research initiatives

- Five working groups were formed for each identified priority to further define the scope, strengths, and opportunities presented by the priority and any identified gaps or major needs:

  - Advanced National Security Technologies
  - Arts Ecosystem & Culture
  - Data, Visualization, and Information Technologies
  - Disease Prevention and Health
  - Food-Energy-Water-Health Nexus

In Parallel Research Initiatives

Texas Semiconductor Summit: Advancing Semiconductor Research and Development 4-5 October 2023 (Host: Texas A&M Semiconductor Institute)

Space Exploration Working Group:
- **Earth and planetary sciences:** earth science; astrophysics; astrobiology; planetary science; exoplanets; space domain awareness; remote communications; and Near-Earth Object (NEO) detection tracking and deflection
- **Human space-flight research:** mission operations; human factors and behavioral performance; space-domain awareness; human-health countermeasures; space radiation; exploration medical capability; food and nutrition; and space governance/humanities
- **Planetary surface engineering and construction:** aerospace power and energy storage; robotics, sensors and autonomous systems; robotics space flight; materials and manufacturing; extraterrestrial construction; space food systems; and spacecraft and satellite launches

AI Working Group:
- Finalize best practices for generative AI in research at TAMU
- Explore generative AI tool development for TAMU

TAMUS
- Establishment of the TAMUS Semiconductor and Space Institutes

Research Workshop Objectives

- Assess and map current Texas A&M capacity including faculty expertise, infrastructure, facilities, and other existing resources.

- Identify areas of strengths and niche domains with opportunities for national/global leadership.

- Identify major gaps in capacity and potential external collaborators to attain a leadership position.

- Highlight specific opportunities for advancing societal impact.

- Identify critical funding opportunities at the state, national, and global levels.

- Identify working groups and leaders to further develop critical initiatives.

- Create a road map to leverage the outcomes of the workshop and ensure actionable steps for further development of the initiative.

Strategic Research Next Steps

Initial Workshops

- TAMUS Semiconductor workshop: Completed October 2023

- Food-Energy-Water-Health Nexus Leadership: November 14, 2023   (integrates – Disease prevention and Health promotion)

- Space Exploration (November 28, 2023)

- Artificial Intelligence (tentative spring 2024) (integrates AI and *Data, Visualization, and Information Technologies)*

- Food-Energy-Water-Health Nexus (tentative spring 2024)

➢ ***Additional workshops tbd (COD, others)***

Strategic Plan Next Steps

➢ Alignment of priorities among university and agencies

➢ Identification of Unit FY24-FY25 Priorities

➢ Identification of additional research workshops for FY24-FY25

➢ Alignment of deliverables and priorities through performance base budgeting

TEXAS A&M UNIVERSITY
RESEARCH COUNCIL

2023 Research Enterprise Highlights

The University Research Council (URC) is an advisory body that provides advice and assistance to the Vice President for Research, on the development of research, research planning and research policy.

The URC representatives from across the campus have shared research highlights for 2022 – 2023. While much of their data precedes the newly released Texas A&M Research Enterprise Strategic Plan (May 2023), to assist in the data collection process we've framed much of their data into the foundational categories in the strategic plan, with the expectation that future annual snapshots using the same broad categories will help provide consistency in reporting. The categories are:

Environment for Innovation: Knowledge, Mentorship, Research Compliance, Research Integrity

Environment for Innovation: Culture of appreciation for Pluralism and Wellbeing

Environment for Innovation: Emphasis on Service

Environment for Innovation: Research Infrastructure

Dynamic Community: Strategic Research Themes, Other Themes

Communications Visibility

This sharing serves several purposes including cross-pollination of ideas and opportunities for best practices, as well as springboards for future planning.

DOR Programs

- **ASCEND - TPT**
  - ✓ Current awards – 9
  - ✓ Next round – January 2024
- **ASCEND - Fellows**
  - ✓ Current - 12 Fellows
  - ✓ Next Round – January 2024
- **Advancing-Discovery-to Market (ADM)**
  - ✓ 95 Proposals (31 Type I / 64 Type II)
  - ✓ Current awards: 16 Proposals (11 Type I / 5 Type II)
  - ✓ First round additional awards – 13 proposals
  - ✓ Next Round: targeted for February/March
- **Research Development Fund (RDF) Classic**
  - ✓ Proposals due October 23 – 23 proposals received, totaling $33.3M
  - ✓ Requests range from 416K to $3.9M. Avg. request is $1.4M
- **Research Development Recurring Funds**
  - ✓ Call for proposals – early February 2024
  - ✓ Due mid to late March
- **Arts and Humanities Fellows**
  - ✓ Current – 6 Fellows
  - ✓ Next Round: targeted for late November
- **Panther Research & Innovation for Scholarly Excellence (PRISE) – TAMU and PVAMU**
  - Current awards – 15 (with PVAMU)
  - Next round: TBD targeting Spring 2024

Centers & Institutes

➢ **Review**
- Review inconsistencies: how units were initiating, conduction and reporting reviews.
- Uncertainty about who the primary responsible party is for C&I shared between TAMU and the Texas A&M agencies.
- Most C&I with External Advisory Boards were not seeking appropriate approvals.
- Revised *TAMU Standard Administrative Procedure 11.02.99.M0.01* and the C&I Operating Manual based on input from URC, CPI, and Faculty Senate.
- Circulating revised TAMU Standard Administrative Procedure 11.02.99.M0.01 for university approval.
- Publish and distribute (DOR web and hardcopy) C&I Operating Manual.

➢ **Ongoing and upcoming work**
- Conduct listening sessions with C&I Directors.
- Completing 2023 C&I Reviews using revised guidelines.
- Starting to focus on potential opportunities for alignment of C&I with emerging research priorities.

Centers & Institutes

➢ **Texas A&M Global Cyber Research Institute endowed by Ray Rothrock '77 & Anthony Wood '90**

- **Cyber Resiliency**: secure existing cyber physical systems as well as enterprise networks to include cyber early warning systems, self-healing systems, and defense-in-depth
- **Open-Source Intelligence:** support early detection of nation state cyber attacks. Develop cyber situational awareness. Address social media and nation state disinformation
- **Cyber Economics:** develop new methods for risk management & mitigation. Holistic approach to cyber supply chains
- **Cyber Standards and Policy:** combining technical, business and policy expertise into usable national standards
- **Cyber Workforce Development:** continue nationally recognized cyber outreach by the Texas A&M Cybersecurity Center

➢ **International Ocean Discovery Program**
- Agreement to operate the *JOIDES Resolution* (JR) concludes 30 September 2024
- NSF notification for demobilization of the vessel at end of FY24
- Multiyear phaseout program will commence (2024-2029)
- Expression of interest for the NSF Scientific Ocean Drilling Coordinating Office
- Negotiating with NSF the return of shipboard instrumentation to TAMU
- Ocean Drilling Legacy Access Projects
- Potential Center for the Characterization of Earth and Planetary Material

Working Groups

Research Data Stewardship (Aaron Brender)
- Review and assess the current policies and practices related to research data management, storage, access, sharing and preservation of data.
- Identify opportunities for optimization of practices, framework for proposed solutions, and recommendations for action plans
- Consider establishment of a TAMU data repository

Undergraduate Research Program (Brendan Roark)
- Develop an Undergraduate Research Program that better integrates undergraduate students into the research ecosystem by providing opportunities for research engagement throughout a student's undergraduate's career at Texas A&M. The program should be modular in design to provide students the flexibility to meet their individual needs.

Core Facilities (Brendan Roark)
- Develop an operational definition of what a core facility is that can be used to organize core facilities into effective and financially sustainable management and support structure.
- How does the operational definition of a core facility impact existing core facilities?
- What are the different funding models available for the sustainable operation of core facilities based on the operational definition of what a core facility is at Texas A&M University.
- How do core facilities provide core services and remain on the cutting edge of their disciplines critical to innovation withing the research enterprise?

Initiatives (NSPM-33)

Implementing NSPM-33 on National Security Strategy for United States Government-

➢ Strengthen protections of U.S. Government-supported R&D against foreign government interference and misappropriation, while maintaining an open environment to foster research discoveries and innovation that benefit the United States and the world.

➢ Specifically, regarding research security programs, NSPM-33 directs research institutions receiving more than $50M in Federal science and engineering support in the prior 2 fiscal years to establish a research security program that includes:
- Cybersecurity
- Foreign Travel Security/Training
- Research Security Training
- Export Control Training

➢ Federal agencies have growing concerns over the potential for foreign influence:
- failure by some researchers to disclose contributions of resources from other organizations, including foreign governments
- diversion of intellectual property to foreign entities
- sharing of confidential information by peer reviewers with others, including in some instances with foreign entities, or otherwise attempting to influence funding decisions

➢ **Continue to monitor requirements as agencies continue to refine requirements; anticipate additional requirements from agencies in spring 2024, possible Congressional input/action**

Initiatives (SB17)

Restrictions do not apply to scholarly research or a creative work by an institution's students, faculty, or other research personnel or the dissemination of that research or work

- **Working with OGC To attain clarification of the following**
  - **to define "scholarly research and creative work"**
  - **to provide guidance/examples on broader impact statements**

Research, scholarship and creative work – includes all basic, applied and demonstration research or creative work in all fields of scholarly inquiry, including science, engineering, mathematics, the humanities, arts, social sciences and professional fields including business and education. (System Regulation 15.99.03 *Ethics in Research Scholarship and Creative Work* https://policies.tamus.edu/15-99-03.pdf)

Research – any systematic investigation, study or experiment designed to develop or contribute to generalizable knowledge. The term encompasses basic and applied research, scholarship (e.g., a published article, book or book chapter) and product development (e.g., a diagnostic test or drug). The term also includes educational activities funded by the National Science Foundation (NSF) or proposed for funding by NSF. (System Regulation 15.01.03 *Financial Conflict of Interest in Sponsored Research* https://policies.tamus.edu/15-01-03.pdf)

Also University Rule 15.99.01.M1 *Human Subjects in Research* https://rules-saps.tamu.edu/PDFs/15.99.01.M1.pdf)

Initiatives (AAALAC)

AAALAC International – Main Campus/Kingsville Accreditation Revisit 2024 (late January-March) (see, https://vpr.tamu.edu/aaalac-international-main-campus-kingsville-accreditation-revisit-2024-late-january-march/)

What can PI's and others do to prepare?
- View the video recording of the AAALAC Post Site Visit IACUC Conversation held in October 2023 and Review/utilize the materials referenced
- Participate in preparatory visits from the Animal Welfare Office (AWO) staff and/or IACUC to ensure issues noted during the 2023 site visit have been fully addressed
- identify protocol drift, return to activities as described in the IACUC approved AUP, and submit a protocol amendment to address desired modifications
- Be aware of requirements described in IACUC Guidance (requires TAMU NetID authentication) including labeling and record keeping see https://vpr.tamu.edu/animals-in-research-and-teaching/texas-am-iacuc-guidance/

Initiatives (IRB conversion to Huron)

November 6, 2023   Deadline to submit all new study initial applications in iRIS.

November 13, 2023   Deadline to submit all other applications (amendments, continuing reviews, personnel changes, administrative check-ins) in iRIS

December 1, 2023 to December 10, 2023 BLACKOUT PERIOD
                    Both iRIS and Huron are closed to all users

December 11, 2023   Go-Live date for the Huron IRB Submission System

Note: IBC and IACUC submissions will continue to use iRIS.

For what to expect and for important conversion timeline information see: https://vpr.tamu.edu/human-research-protection-program/huron/

Visit the Huron Knowledge Center to access step-by-step instructional guidance materials: https://vpr.tamu.edu/human-research-protection-program/huron-knowledge-center/

Enroll in a Huron training session. Virtual training sessions will be available daily, Monday through Friday, twice a day starting November 13, 2023, until Huron goes live on December 11. Morning sessions will be offered at 9 AM and afternoon sessions at 2 PM. please contact Denise Puga at denisepuga@tamu.edu.

Initiatives (Other)

Research Infrastructure Network and Database
- brings together Laboratory Leads across campus
- Improves efficiency and effectiveness
- Identifies instrumentation needs,
- Identifies IT related issues,
- Improves maintenance/repair/replacement of research infrastructure,
- Identifies safety and compliance issues,

The database will be housed in the Facilities, Analytics and Mapping space inventory system but will be maintained and monitored by the DOR. The database will consist of, but not be limited to the following:

- Building number, room number, square feet measurements
- Room infrastructure (# of plugs, # of benches, # of hoods, etc.)
- Department allocation
- Purpose (Office, Wet lab, Computer room, Kitchen/Break room, etc.)
- Identified Facility Manager
- Identified Other Point of Contact (lab manager, postdoctoral researcher, PI, etc.)
- Major Equipment Inventory (capital and controlled assets)
- Hazards listed in Bioraft
- IBC, IACUC, and IRB protocols in the space
- Shared resources available (major equipment, computers, service center information, etc.)

Initiatives (Other)

Clinical Research Support Framework
- Define and assess the current state of functional components, business processes, information systems and organizational structures that currently support the clinical research lifecycle at Texas A&M. Identify any operational gaps;
- Based on the assessment, and peer best practices, recommend, and develop an organizational framework for a seamless, efficient and compliant research environment that supports the research community, facilitates quality research, enhances interactions with sponsors and collaborators, and supports the growth and expansion of both federally sponsored and industry sponsored clinical research.

Vivarium Assessment
- Evaluate and assess condition, capacity and management of current vivarium space on main campus and TAMU Health facilities in Brazos County, Kingsville and Dallas.

Research Communications
- Increase the influence of TAMU research at local, regional, nationally and global levels
- Demonstrate the research capacity of our faculty, units and university - How are we changing the world – tell our story
- Support the research strategic plan priorities to establish TAMU as a leader in specifically defined areas.
- Align as appropriate communication plans across TAMU units
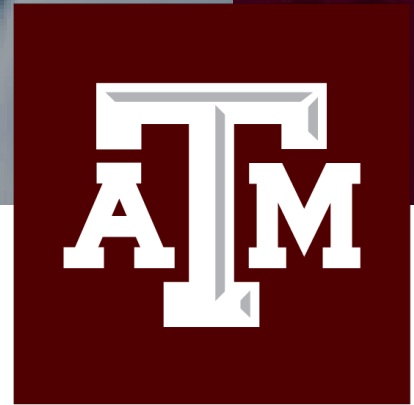
Thank You

vpr@tamu.edu

Division of
RESEARCH