Research Identity Committee

Charge: Define the Texas A&M University "**Research Identity**" and develop a process for advancing this identity throughout the state and the nation

1. What are the traits and characteristics of our research enterprise?
2. What are the strengths of our identity? What makes us distinct?
3. What do we desire to be known for?
4. Why target audiences should care.
5. How best to communicate our research to our stakeholders.

Division of Research – Jack Baldauf	TAMU Internal & External processes - strategic
Marketing and Communications – Ethan Braden	TAMU Internal & External processes - visibility
Planning, Assessment and Strategy – Michelle Mitchell	TAMU Internal & External processes – strategic & visibility
Office of the Vice President for Research – Mona Somers	TAMU Internal & External processes - strategic
Subgroup 1	
Texas A&M Foundation – Tyson Voelkel	External stakeholders – former students, donor community
Office of Government Relations – Michael Hardy	External stakeholders – government (all levels)
Community Engagement – Rebekka Dudensing	External stakeholders – partnerships, public
Mays Business School – Mike Withers	External stakeholders – industry, partnerships, public
Subgroup 2	
AgriLife Research – Amir Ibrahim	Agencies - External stakeholders – industry, partnerships, public
TEES – Rodney Bowersox	Agencies – External stakeholders – industry, partnerships
TAMUS – Joe Elabd	Agencies - System stakeholders
TAMU – Debbie Thomas	TAMU – internal processes – research breadth
Subgroup 3	
TAMU Council of Deans – Robert "Bobby" Ahdieh	Constituent group – internal processes – research breadth
Faculty Senate Research Committee – Matthew Sachs	Constituent group – internal processes – research breadth
Council of Principal Investigators – Robin Page or delegate Rebecca Brooker	Constituent group – internal processes – research innovation
University Research Council – Mike Criscitiello	Constituent group – internal processes – research strategic
Subgroup 4	
Professional Graduate & Professional School – Fuhui Tong or delegate Charles Criscione	Constituent group – research workforce development
Student Researcher – Sumana Datta (LAUNCH)	Constituent group – research workforce development
Postdoctoral – Andreea Trache	Constituent group – research workforce development

Background/context: The university research identity is a shared perspective of who we are, why we exist, how we are excellent and preeminent, and how we distinguish ourselves from other research enterprises. This persona also includes what we stand for, what we desire to be known for, and why target audiences should care. Our research identity should be founded in attributes that crosscut other university elements and are "in character" for Texas A&M. Examples may include our stature as a land, sea and space grant university, our impact to the state and society, the quality and caliber of our students, and/or our university core values, among others. Our research identity may include specific thematic areas, but specific topics should evolve with changing research capacity and opportunities. Defining our research identity will provide a common identity and help us build visibility and positioning of that strength. Doing so in turn will while providing a strategic approach to making decisions, defining priorities, building partnerships/collaborations, and crafting marketing and communications strategies.

Timeline/Critical communication access points:
- Commence February 6, 2024, virtual (Zoom) meetings.
- Ongoing updates/discussions with constituent groups
- Listening Sessions April 15 – 19, May 1, May 8, May 10
- Final report completed May 30, 2024

Data Resources (existing and to obtain):
- [University Research Enterprise strategic plan](#)
- University unit priorities
- Survey of students, postdocs, employers, recruiters, stakeholders
- Third-party, external analysis of Texas A&M's research identity and thematic areas within earned and social media (volume and engagement) relative to selected peers (in progress)
- Other

Zoom Tips

PRIOR TO THE SESSION:
- Please check to make sure your Zoom version is **5.14.5** or higher. (The Division of Research most recent update is 5.17.11); please contact your respective Technology support if you need assistance.
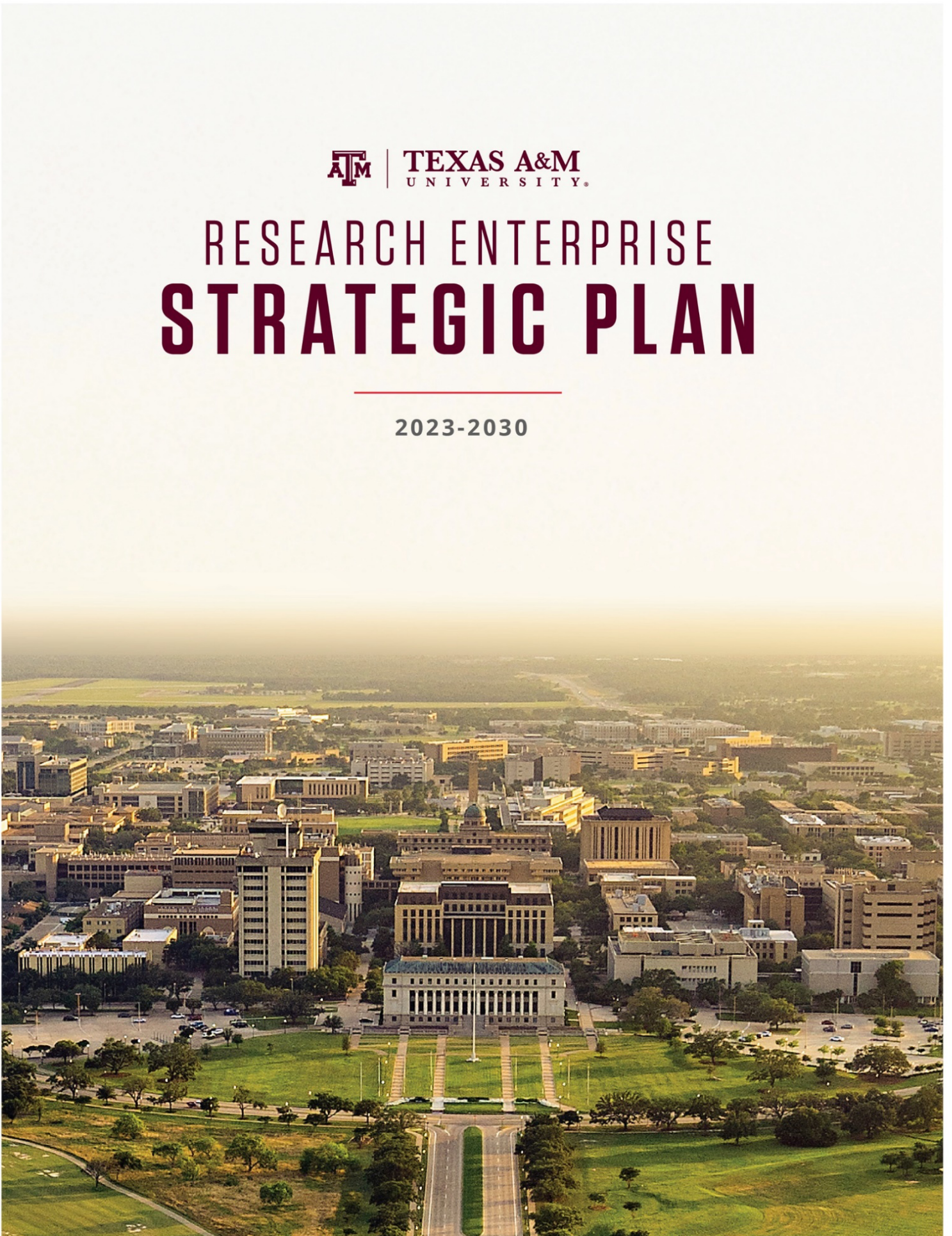
DAY OF:
- Sign in to tamu.zoom.us
- Utilize the personal meeting link sent to you as part of your registration process (do not share)
- Be familiar with the [Poll, Chat, and Q&A options](#), as you will be asked to engage and provide feedback through these features.

RESEARCH ENTERPRISE
STRATEGIC PLAN

2023-2030

FROM THE VICE PRESIDENT FOR RESEARCH

The process of developing a strategic plan for the Texas A&M University research enterprise started during the summer of 2021 as we assessed administrative and research activities inside and outside the university community. Since then, we've listened and learned as we conducted surveys, town halls, and listening-and-feedback sessions. Many within the research enterprise have shared their perceptions of the strengths, opportunities, aspirations, and results possible with the engagement of all stakeholders.

As much as possible, we incorporated recurring themes related to innovation, the ecosystem of research infrastructure, interdisciplinary research, and service efficiencies, and we supported the highest expectations expressed through this assessment process within the research enterprise strategic planning document. We clearly heard stakeholders express the importance and need for purpose and connection surrounding the conduct of research to serve the public good and meet societal challenges.
The content within and the outcomes expected are not just for the Division of Research. This document will forge a path forward, without infringing (whenever possible) upon the diversity of thought expected of a R1 research university.

The division will facilitate, lead, and execute the cultural changes and innovative processes within our service centers that will continue to elevate the research community's efforts. Only through embracing multiple perspectives, identities, and experiences will we assure that students, faculty, and staff—as well as external stakeholders—are part of the research conversation. Foundational to this effort will be acknowledging the importance and significance of our Aggie core values—respect, excellence, loyalty, leadership, integrity, and selfless service—and ensuring our actions and research endeavors reflect these values.

This university-wide research enterprise document is dynamic and is accompanied by resources and tools to assist individuals and units in communicating and executing plans and activities in support of meeting personal, unit, and institutional goals.

It is my hope and expectation that, as part of this process of planning and engagement, you will find new purpose, renewed motivation, and encouragement in your unique role in the research enterprise as we all move forward.

Cheers,

Jack Baldauf

DIVISION OF RESEARCH MISSION STATEMENT

Texas A&M is one of the world's leading research universities. The Division of Research will advance and strengthen all aspects of the research enterprise by implementing an enhanced, integrated, and strategic approach to:

- **Capitalize on our research strengths and knowledge to deliver solutions to serve the public good**
  - Grow our resources, infrastructure, data, and technology
  - Align opportunities with potential collaborators and research teams
  - Support interdisciplinary/multidisciplinary collaborations to advance research
  - Increase federal, state, and private funding
  - Provide effective research support
- **Build capacity through collaborations and strategic investments**
- **Promote creativity and innovation, while ensuring the highest standards of research integrity in proposing, conducting, and reporting research, and promote and facilitate safe, ethical, and scholarly activity that reflects the university's mission and core values**
- **Increase communication and enhance visibility with stakeholders to promote the value of research and the research enterprise**

The Texas A&M Research Enterprise Strategic Plan outlines a wholistic approach to sustain and maintain a thriving research ecosystem. Each element (A – E) correlates to the mission statement above.

A. Environment for Innovation (Foundational for creating and sustaining a culture of creativity and innovation)

- Knowledge-seeking, Mentorship, Shared responsibility in responsibility and accountability in research compliance
- Culture of appreciation for plurality and wellbeing
- Emphasis on service and process-oriented elimination of service barriers
- Research infrastructure, Internal funding investments, Performance-based budget, Performance evaluation equity

B. Dynamic Community – Stakeholders, Strategic Research Themes/Sub-themes, Synergies

- Advocating for crosscutting communications on the landscape of the current and future research enterprise

C. Communications Visibility – Basic Applied or Translational Research Results

- Encouraging continuum of processes for sharing of information, internal and external, to serve public good

D. Texas A&M 2036

- Developing a pipeline of scholars, futurists, to envision what's possible, leading up to the 200th birthday of the state of Texas, and beyond

E. Assessment of Impacts

- Setting guidelines for information gathering and sharing, with associated key performance indicators to be developed by stakeholders, establishing meaningful metrics based on results and impacts expected to advance the research enterprise, serving the public good

Implementation plans will include:

- Baselining with respective units/colleges/schools/centers/institutes, etc. to confirm current state of alignment, areas of opportunity, and new knowledge
- Establishing efficient communication protocols to accelerate future collaborations and partnerships
- Strategic planning related to visioning impacts/results for establishing meaningful metrics

Table 1: Strategic Research Themes, Sub-Themes, and Texas A&M's Areas of Strength and Opportunity

Strategic Research Themes	Strategic Research Sub-Themes	Examples of Research Areas of Strength/Opportunity within Texas A&M
Community, Culture, and Economic Resilience	**Arts Ecosystem and Culture**	Impact of arts on health & wellbeing, education and economy, community transformation and healing, adaptation to social, economic and technological challenges, public humanities, cultural heritage, historic creative activity, civics education, creative production and performance, use of new media and technologies in arts, and tourism
	Human Development and Social Dynamics	Human resource development, change management, resilience, leadership development, social dynamics, policy, human factors, bioethics, education disparities
	Workforce and Future of Work	Workforce development, future of work, cultures of work, policy, inclusive workforce
Emerging Technologies and Innovations	**Artificial Intelligence, Learning, and Autonomy**	Machine learning, deep learning, human-machine interactions, sensors, robotics, computer vision, ethics/policy, technology adoption
	Biotechnology and Biomanufacturing	Synthetic biology, genomics, gene editing, genetic medicines and RNA/DNA vaccines, biomanufacturing
	Data, Visualization, and Information Technologies	Digital twins, computing platforms, visualization, AR/VR technology, LED production stages, communicating with the future, policy
	Microelectronics and Semiconductors	Analog and mixed signal circuits, artificial intelligence hardware, biosensors, brain-inspired computing, integrated photonics, intelligent and cognitive EM sensors, MEMS sensors and actuators, memristors and emergent memory devices, metrology, molecular computing, neuromorphic materials, radiation-hardened electronics, secure edge computing, 5G/6G technology, workforce development
	Quantum Science and Technology	Quantum sensing, quantum biology, quantum communications, quantum computing
Health and Quality of Life	**Diagnostics, Treatments, Intervention, and Cures**	Biomedical devices, diagnostic technologies, precision medicine, genetics/genomics, toxicology/environmental health, neuroscience, infectious diseases, zoonotic/emerging diseases, digital health, telehealth, cancer therapeutics/vaccines, cardiovascular diseases, communication and adoption, clinical trials, governance
	Disease Prevention and Health Promotion	Risk and protective factors, food-nutrition-health link, prevention of chronic diseases, stress management, vaccine development, emissions-energy-health interactions, health communication, hospitality and recreation
	Health Disparities and Community Health	Rural and community health, racial/ethnic/socioeconomic health disparities, women's health and gender differences, military and operational medicine, humanitarian assistance/disaster response, health resilience, global health security, governance
National Security	**Biodefense and Biosecurity**	Detection/forecasting, rapid response/contamination, pandemic response, one health, rapid therapy/vaccine development, applied biosafety/bio-risk mitigation, environmental surveillance, manufacturing, supply chain
	Cybersecurity	Cybersecurity assessment, human dimensions, cyber modeling, privacy versus security, governance
	Nuclear Security	Arms control, nuclear terrorism, risk analysis, nuclear forensics, nuclear nonproliferation, nuclear power, policy
	Advanced National Security Technologies	Directed energy; hypersonic technology; ballistics; encryption; systems engineering; materials for extreme environments; policy
Space Exploration	**Human Space Flight**	Human factors and behavioral performance, human health countermeasures, space radiation, exploration medical capability, research operations and integration, food/nutrition, space humanities
	Space Engineering and Construction	Aerospace power and energy storage; robotics, sensors, and autonomous systems; robotics space flight; materials and manufacturing; space food systems
	Earth and Planetary Sciences	Earth science, astrophysics, astrobiology, planetary science, exoplanets, space domain awareness, remote communications, asteroid detection and deflection
Sustainability and Environment	**Climate Resilience and Mitigation**	Climate resilience/mitigation, coastal resiliency, blue economy, carbon capture, environmental ethics/humanities, policy
	Energy Transition/Clean Energy	Biomass/renewables, nuclear reactors, hydrogen economy, smart grid/infrastructure of the future, electrification, decarbonization, energy storage, critical materials, simulations of scenarios of energy of the future, response, training, policy
	Food-Energy-Water (FEW) Nexus	Development and application of integrated tools/platforms to inform the decision-making process for FEW resilience, assessment of the sustainability of FEW systems, water quality decision support system, FEW and health, food security, clean water, response, training, policy

Table 2: Strategic Research Themes Mapped onto the Priorities of Federal R&D Funding Agencies and Texas Legislature, and Internal Capacity within Texas A&M

Strategic Research Themes	Strategic Research Sub-Themes	Alignment with National and Texas (TX) Legislative Priorities	Texas A&M Capacity (Initial Mapping of Alignment with Colleges, Schools, Agencies, and *Centers/Institutes/Core Facilities*)
Community, Culture, and Economic Resilience	**Arts Ecosystem and Culture**	NEA, NEH, NSF, NIH	CAS, SEHD, PVFA, SOA (*HRRC, CHUD, CHC*), BUSH, LAW, LIBRARY, *GCHR, CoDHR, CSFA, CMAC, RESI*
	Human Development and Social Dynamics	NSF, NIH, DOED, NEA, USAID, UN	SEHD, CAS, MAYS, PVFA, TEES (COE), HSC (SPH, SoN, SoM, SoP), AGLR (COALS), LAW, BUSH, AGEX, TEEX, TTI, *IECE*
	Workforce and Future of Work	NSF, NIH, DOED, USDA, DOC, CHIPS ACT, NEH, MULTI-AGENCY R&D, NATIONAL SECURITY, USAID, UN, TX	SEHD, CAS, MAYS, PVFA, TEES (COE), AGLR (COALS), LAW, BUSH, AGEX, TEEX, TTI, *ERGO, ARCHI*
Emerging Technologies and Innovations	**Artificial Intelligence, Learning, and Autonomy**	NSF, NIH, DOD, DARPA, DOED, CHIPS ACT, MULTI-AGENCY R&D, NATIONAL LABS, SBIR/STTR	TEES (COE), CAS, SEHD, AGLR (COALS), PVFA, HSC (SoM, SoP), BUSH, TTI, TAMIDS, SOA, (*GeoSAT*)
	Biotechnology and Biomanufacturing	NSF, NIH, DOE, DOD, DOC, DARPA, CHIPS ACT, MULTI-AGENCY R&D, NATIONAL BIOTECH, SBIR/STTR	CAS, AGLR (COALS, VMBS), HSC (SoM, SoP), TEES, SEHD, *CPT, MIC, TxGEN, AggieFab, MCF, NCTM, SI, CIADM*
	Data, Visualization, and Information Technologies	NSF, NIH, USDA, DOC, DARPA, NEH, SBIR/STTR MULTI-AGENCY R&D, NATIONAL SECURITY, TX	CAS, PVFA, SOA, TEES (COE), AGLR (COALS), SEHD, MAYS, BUSH, HSC (SPH), TTI, *HPRC, TAMIDS, ARCHI*
	Microelectronics and Semiconductors	NSF, NIH, DOE, DOD, DOC, DARPA, CHIPS ACT, MULTI-AGENCY R&D, SBIR/STTR, TX	TEES (COE), CAS, MAYS, SEHD, AGLR (COALS), *AggieFab, CI, HPRC, IQSE, MCF, NESC, TAMIDS*
	Quantum Science and Technology	NSF, DOD, DARPA, MULTI-AGENCY R&D	CAS, TEES (COE), AGLR (COALS), *IQSE,*
Health and Quality of Life	**Diagnostics, Treatments, Intervention, and Cures**	NIH, DARPA, DVA, DHA, HRSA, ARPA-H, MULTI-AGENCY, MULTI-AGENCY R&D, NATIONAL BIODEFENSE, USAID, UN, TX	HSC (SoD, SoM, SoN, SoP, SPH), CAS, TEES (COE), ENMED, AGLR (COALS, VMBS), TVMDL, PVFA, SEHD, *CVRI, GHRC, CMDD, CPT, CTCR, HCRF, TAMIN, IQSE*
	Disease Prevention and Health Promotion	NIH, USDA, MA, CDC, DHA, HRSA, ARPA-H, NEH, SBIR/STTR, UN, TX	HSC (SoM, SoN, SPH), SEHD, SOA (*CHSD, CHUD*), AGLR (COALS, VMBS), AGEX, TTI, TEES, *IAH, IBT, CCHD, HCDC, GHRC, IIAD, CARTEEH*
	Health Disparities and Community Health	NIH, DOED, USAID, VA, DHA, NSF, HRSA, ARPA-H, NEH, MULTI-AGENCY R&D, UN, TX	HSC (SoD, SoM, SoN, SoP, SPH), SEHD, SOA (*CHSD, CHUD*), CAS, AGLR (COALS), BUSH, TEES, AGEX, *CDC, IECE, IAH, CHEER, SRHRC, CCHA, HST*
National Security	**Biodefense and Biosecurity**	NIH, DOE, NL, DARPA, DHS, CDC, MULTI-AGENCY R&D, NATIONAL BIODEFENSE, NATIONAL SECURITY, NATIONAL LABS, SBIR/STTR, USAID	HSC (SoM, SoP, SPH), CAS, TEES (COE), AGLR (COALS, VMBS), TDEM, TVMDL, TEEX, BUSH, *GHRC, IIAD, CBTS, IQSE, NCTM, CIADM, TEMAG, TxGEN*
	Cybersecurity	NSF, DOD, DOC, DOE, DARPA, AFOSR, CHIPS ACT, MULTI-AGENCY R&D, NATIONAL SECURITY, SBIR/STTR, NATIONAL LABS	CAS, TEES (COE), LAW, MAYS, SEHD, TEEX, *CC, GCRI, HPRC, BCDC, CI, TAMC2*
	Nuclear Security	DOD, DOE, NASA, DARPA, NATIONAL SECURITY, SBIR/STTR MULTI-AGENCY R&D	TEES (COE), CAS, LAW, BUSH, *NPI, NSC, CI*
	Advanced National Security Technologies	DOD, DOE, NASA, DARPA, NATIONAL SECURITY, SBIR/STTR, MULTI-AGENCY R&D	TEES (COE), CAS, LAW, BUSH, TTI, *BCDC*
Space Exploration	**Human Space Flight**	NASA, DOC, AFOSR, CHIPS ACTS, NATIONAL LABS	HSC (SoM, SoN, SoP, SPH), TEES (COE), CAS, AGLR (COALS), SEHD, PVFA, BUSH
	Space Engineering and Construction	DOD, NASA, DOE, DARPA, AFOSR, CHIPS ACT, SBIR/STTR, MULTI-AGENCY R&D	TEES (COE), CAS, SOA, PVFA, AGLR (COALS), *CI*
	Earth and Planetary Sciences	NASA, DOC, DOD, AFOSR, CHIPS ACT, NATIONAL SECURITY, NATIONAL LABS	CAS, TEES (COE), LAW, *IQSE, CI*
Sustainability and Environment	**Climate Resilience and Mitigation**	NSF, DOE, USDA, DOC, CHIPS ACT, NATIONAL SECURITY, NATIONAL LABS, NEH, MULTI-AGENCY R&D, USAID, UN	CAS, AGLR (COALS, VMBS), TEES (COE), SOA, SEHD, BUSH, MAYS, HSC (SPH), Galveston, Qatar, TDEM, PVFA, TTI, *TSG, TIO, NRI, EI, TCCS, ISTPP, NBI, TWRI*
	Energy Transition and Clean Energy	NSF, DOE, USDA, DOC, DOT, AFOSR, CHIPS ACT, NATIONAL SECURITY, NATIONAL LABS, ARPA-E, SBIR/STTR, MULTI-AGENCY R&D, UN, TX	TEES (COE), CAS, AGLR (COALS), MAYS, PVFA, SEHD, SOA, (*CHUD, CHSD*) BUSH, LAW, TEEX, TTI, Qatar, *EI, CIR, NCEBR, IQSE, CI*
	Food-Energy-Water Nexus	NSF, DOE, USDA, NIH, CHIPS ACT, NATIONAL LABS, NATIONAL SECURITY, USAID, UN, TX	CAS, AGLR (COALS), TEES (COE), AGEX, SEHD, BUSH, SOA, MAYS, PVFA, HSC (SPH), TEEX, Galveston, *TSG, TWRI, EI, NBI*

"Current research, how do we capture, talk about it, bundle it, and market it... to benefit Texas A&M and the researchers in the future." – President Mark A. Welsh III, State of the University

What are we known for as an institution?

Our mission focus is on making a difference, conducting foundational and translational research, and improving lives through education, innovation, and excellence as a Tier 1 research institution. Our faculty and staff are scholarly and creative work, thought leaders that conduct research with their students, and in doing so, develop future workforce thinkers and doers.

We are 1 of 24 land-, sea-, and space-grant universities in the nation, providing impactful research outcomes in varied disciplines. Our Aggie core values of respect, excellence, leadership, loyalty, integrity, and selfless service guide our approach to research.

As a member of the Texas A&M University system, we are 1 of 11 universities working together with 9 State agencies (including System), Texas A&M AgriLife Research and Texas A&M Engineering Extension Service being 2 of the largest of their kind. We have connectivity in every county across Texas and provide services and creative solutions in partnership with communities, industry, and local, state, and federal agencies.

Inspiring innovators through selfless service, cultivating scientific discoveries and creative solutions through development of tomorrow's leaders, Texas A&M researchers care for humanity, the land, and the waters, to the stars and beyond.

Our research can be bundled into these thematic areas:

- Community, Culture and Economic Resilience
- Emerging Technologies and Innovations
- Health and Quality of Life
- National Security
- Space Exploration
- Sustainability and Environment

What do we desire to be known for?

We will demonstrate leadership in elevating communications on the importance and relevance of our research ecosystem. We will bring visibility to Texas A&M through our leadership in these initial focus areas:

- Space Exploration (human, space engineering, earth & planetary sciences)
- Health disparities, Health promotion (human, animal, rural, social determinants, technology)
- National security (maritime, cyber, bio)
- Food, Energy, Water, Health (nutrition, sustainability, ecosystem health)

Stakeholders – Research Identity, Update & Listening Sessions – May 2024

- Council of Deans   May 1
- Council of Principal Investigators   May 8
- Distinguished Professors/Dept Heads   May 10

Themes of Research Identity Issues raised during committee meetings, Update & Listening sessions held in April 2024:

1. How does one see themselves in the selected areas, either the large, broad umbrellas or very focused areas (where do I fit in) – see below.
2. Impact on Resources (how will this affect my research, my funding, etc.)
3. Communications – how does this impact stories about my research; does this mean all the communications and external stories are going to be focused on these specific areas (Implementation strategies)
4. The idea that this effort is strictly a marketing campaign (focused, strategic vs. marketing approach)
5. Include history of land-, sea-, space-grant, traditional strengths, the University is a full-spectrum, comprehensive, innovative, and creative research ecosystem.
6. Most students don't understand we're a research university.

What are your thoughts on these issues, and any other comments or feedback?

In order to meet the deadline of providing a recommendations report to President Welsh by the end of May, your feedback is requested no later than May 15 to vpr@tamu.edu or anonymously via Feedback – Division of Research (tamu.edu)

- Community, Culture and Economic Resilience
- Emerging Technologies and Innovations
- Health and Quality of Life
- National Security
- Space Exploration
- Sustainability and Environment

- Space Exploration (human, space engineering, earth & planetary sciences)
- Health Disparities, Health Promotion (human, animal, rural, social determinants, technology)
- National Security (maritime, cyber, bio)
- Food, Energy, Water (nutrition, sustainability, ecosystem health)