

# Understanding the Impact of Federal Research Funding on New Mexico Innovation, Economic Development & Quality of Life

## **Sustaining Innovation, Workforce, and Community Impact**

**Presented by Vice Presidents for Research – NMSU, NM Tech, UNM & UNM HSC**

**October 20, 2025**

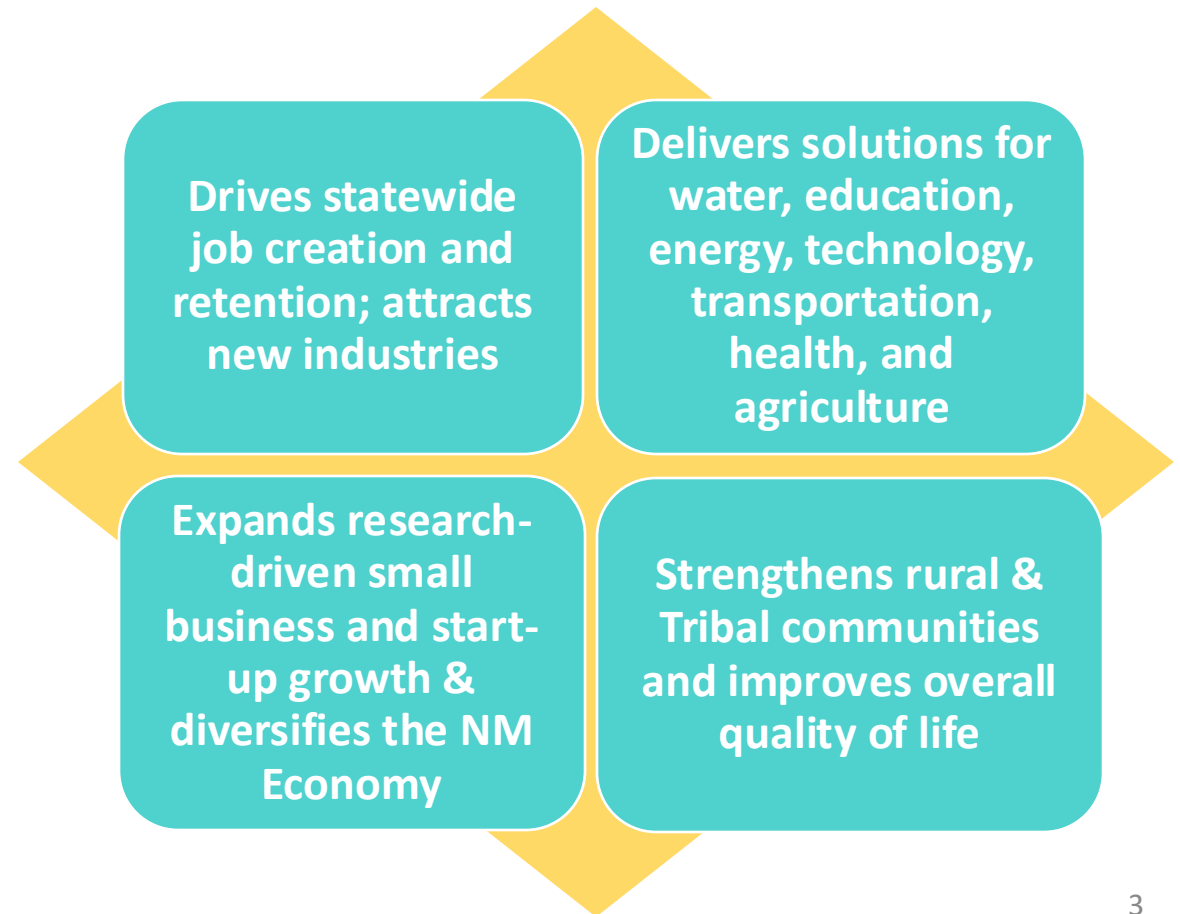
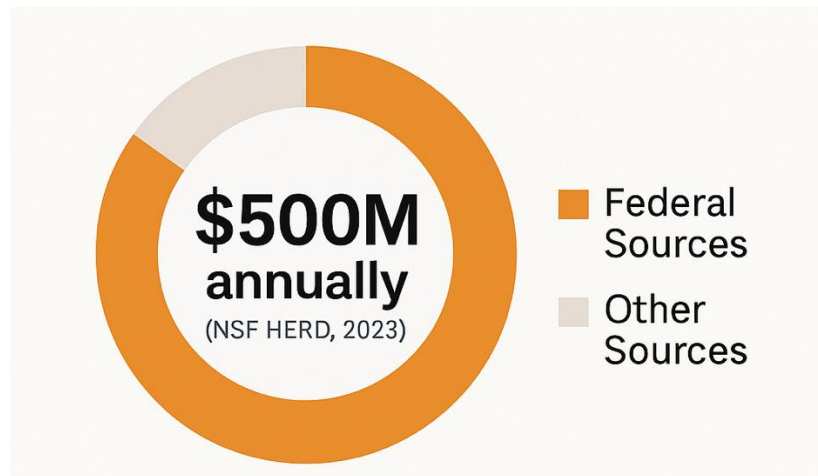
# Federal Funded Research Fuels Innovation and Discovery

Federal funding powers innovation across New Mexico—fueling breakthroughs in energy, water, defense, education, technology, culture, transportation and health that directly benefit our communities.

- **Discovery and Applied Science** – Core NSF / NIH / DOE support in biology, physics, chemistry, materials, engineering, social sciences
- **National Security & Space** – Collaborative LANL, Sandia National Labs, DOE, DoD, AFRL, WSMR, and NASA research in aerospace, directed energy, autonomous systems, and defense technologies
- **Energy, Water, and Agriculture Systems** – DOE, EPA, and USDA funding for grid modernization, water reuse, precision agriculture, drought resiliency, climate modeling, and sustainable resource management
- **Research Testbeds & Shared Facilities** – Federal investment develops infrastructure to demonstrate, validate, and translate to use
- **Education** – Multicultural education; early childhood education; family wellbeing, STEM education excellence
- **Advanced Computing & Emerging Tech** – Support for Quantum Information Science, AI, Edge Computing, and High-Performance Computing driving data- and mission-critical innovation
- **Health & Biosciences** – NIH and CDC initiatives in biomedical research, behavioral health, disease prevention, and rural healthcare delivery
- **Innovation & Small Business** – SBIR/STTR and university tech-transfer programs fueling startups, local manufacturing, and workforce growth
- **Cultural & Historical Preservation** – supporting communities, cultural resource investigations, archeological projects, oral histories; language preservation
- **Transportation** – meeting future transportation needs, safer bridges and highways, and innovative materials

# Economic Impact of Research to New Mexico

**An estimated 75% of university research funding in New Mexico originates from federal sources — fueling every sector of our innovation economy.**



# Aligning Research with New Mexico's Science & Technology Roadmap

Research priorities align directly with state innovation clusters



Cross-institutional collaboration ensures efficiency and reduces duplication



Infrastructure investment ensures readiness for new federal and industry opportunities



Testbeds link university R&D to state economic sectors

# Testbeds: From Federal Research to Real-World Results



NMSU UAS Aerostar, X6 Multicopter with LIDAR, Trinity Pro VTOL



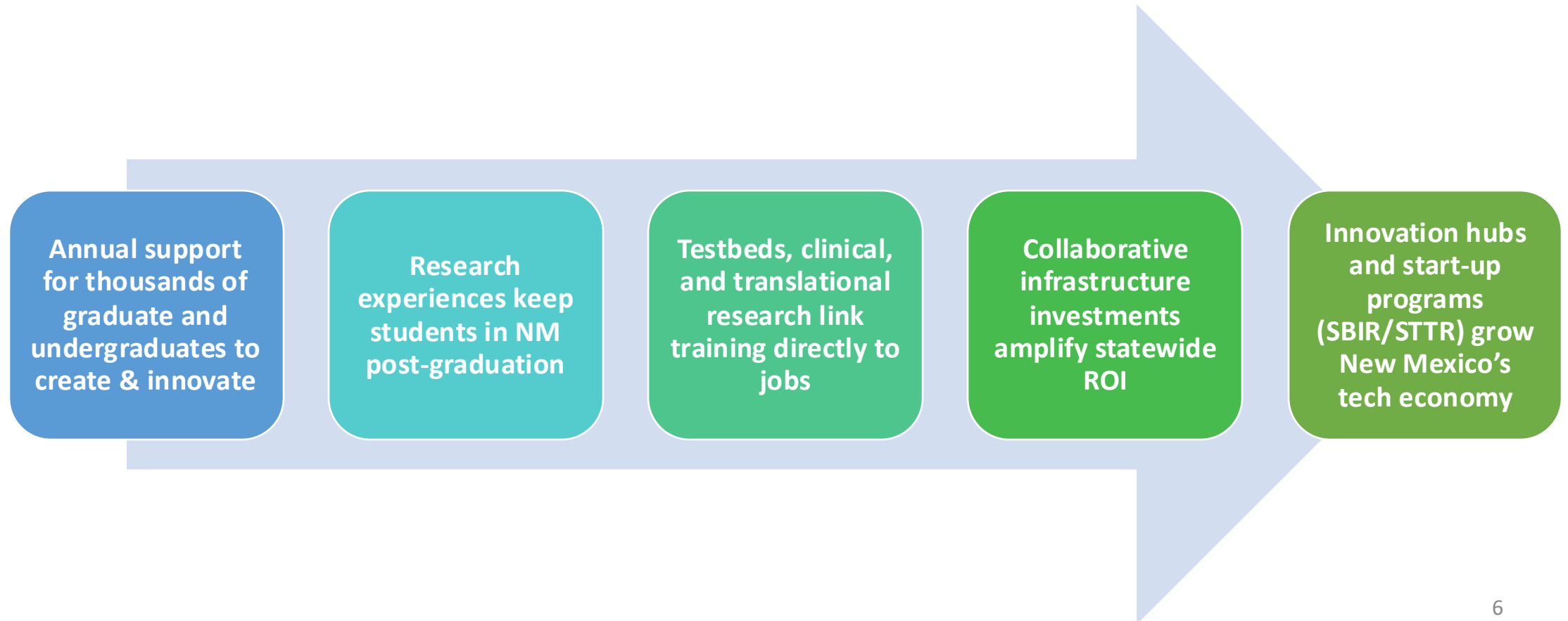
New Mexico Tech-EMRTC

## Federal funding for testbeds builds New Mexico's innovation infrastructure—where discovery becomes deployment.

- **Anchor of New Mexico's Research Infrastructure** – Testbeds are federally funded platforms that move discoveries from lab to field in aerospace, energy, water, defense, and agriculture.
- **Catalyst for Innovation** – They enable collaboration between universities, national labs, and industry—accelerating technology validation and commercialization across the state.
- **Built and Sustained by Federal Programs** – Supported through NSF, DoD, DOE, USDA, and NASA investments that fund infrastructure, pilot projects, and research-to-application pipelines.
- **Statewide Reach** – From Las Cruces to Socorro to Albuquerque, testbeds link NMSU, NM Tech, UNM, and the labs, creating a connected network of real-world innovation.
- **Multiplier Effect** – Each federal dollar invested in testbed infrastructure attracts matching funds, industry contracts, and small-business partnerships.
- **Talent Engine** – Students and technical staff gain applied experience in live research environments—turning education into workforce readiness.
- **Strategic Importance** – Sustaining testbed funding ensures New Mexico remains a national leader in defense, energy, computing, technology, and water innovation ecosystems.

# Research as a catalyst for Workforce Growth

***Every research dollar is also a workforce dollar—  
it funds training, mentorship, and skills development.***



# Interconnected Impact of Federal Research Funding



When an institution loses funding, impacts cascade across universities, labs, and small businesses - weakening the state's research enterprise, workforce, and economic future.

- **Shared Ecosystem** – NM's universities, labs, and small businesses depend on interconnected federal support – some coming in the form of subawards from other institutions
- **Ripple Effects** – A single funding cut disrupts research partnerships, joint projects, and shared infrastructure
- **Talent Pipeline Risk** – Fewer grants mean fewer student assistantships, research experiences, and skilled workforce opportunities
- **Innovation Slowdown** – Reduced funding limits tech transfer, startup growth, and industry collaboration
- **Statewide Consequences** – One break in the chain weakens the entire research and economic ecosystem

# Shifts in Federal Funding Priorities



- Federal research priorities are evolving toward narrower mission areas
- NM universities are seeking ways to protect programs critical to New Mexico and are exploring mechanisms to enhance alignment with US administration priorities to remain competitive
  - May require investment in new capacity and infrastructure to remain competitive and to optimally serve the needs of New Mexico
- Institutions are ramping up efforts to diversify funding by expanding state partnerships, industry collaborations, and philanthropic investments
  - Expanded state support ensures NM remains competitive in this evolving environment



# Additional Challenges

Retaining Research Active Faculty – the necessary intellectual capital

Attracting Research Workforce – at all levels

Providing Critical Trained Healthcare Workers to NM – at all levels

Maintaining Critical Research Infrastructure – including research support staff

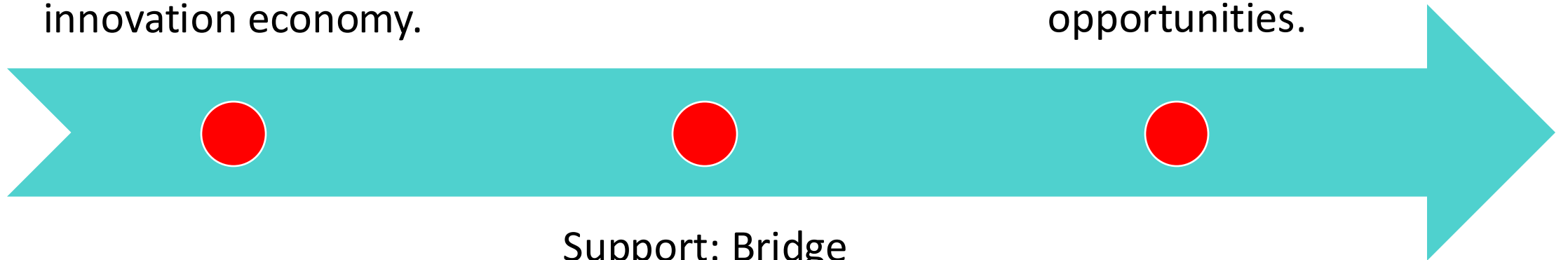
Supporting Under-resourced Learners in NM & their Communities

# Partnering for New Mexico's Research Future

Recognize: Federal research is the foundation of NM's innovation economy.

Invest: Modern facilities and infrastructure to ensure readiness for future federal opportunities.

Support: Bridge funding and matching investments for impacted programs and testbeds.



Questions?