



New Mexico Tech: Research Roadmap

August 10, 2026

Lique Coolen, Vice President for Research, Provost/Vice President for Academic Affairs



Research at New Mexico Tech:



New Mexico Tech Research Aligned with New Mexico's Science & Technology Roadmap

Research and development priorities align directly with state innovation clusters

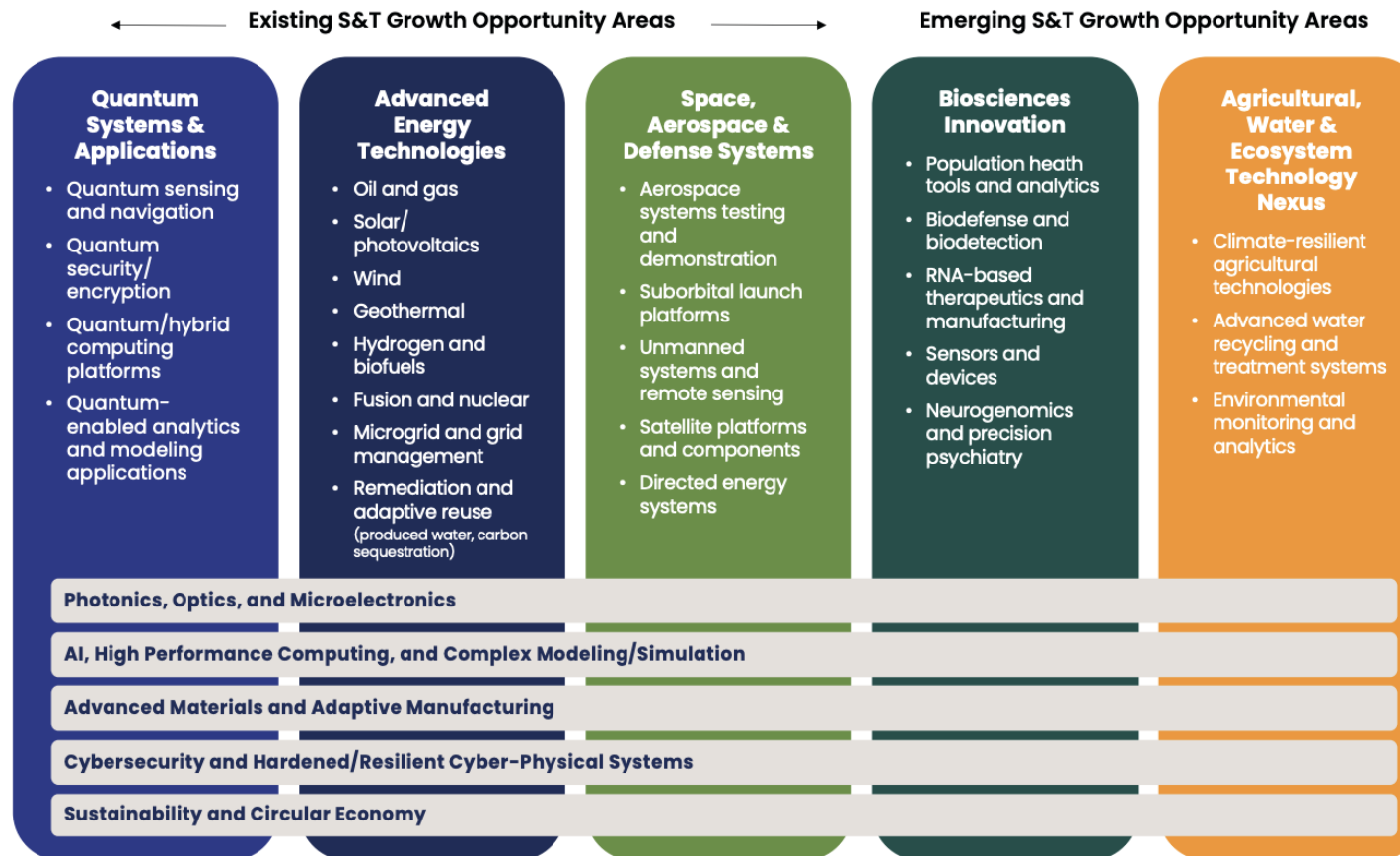
Multi-Institutional collaborations ensure efficiency and reduce duplication

Infrastructure investments ensure readiness for new federal and industry opportunities

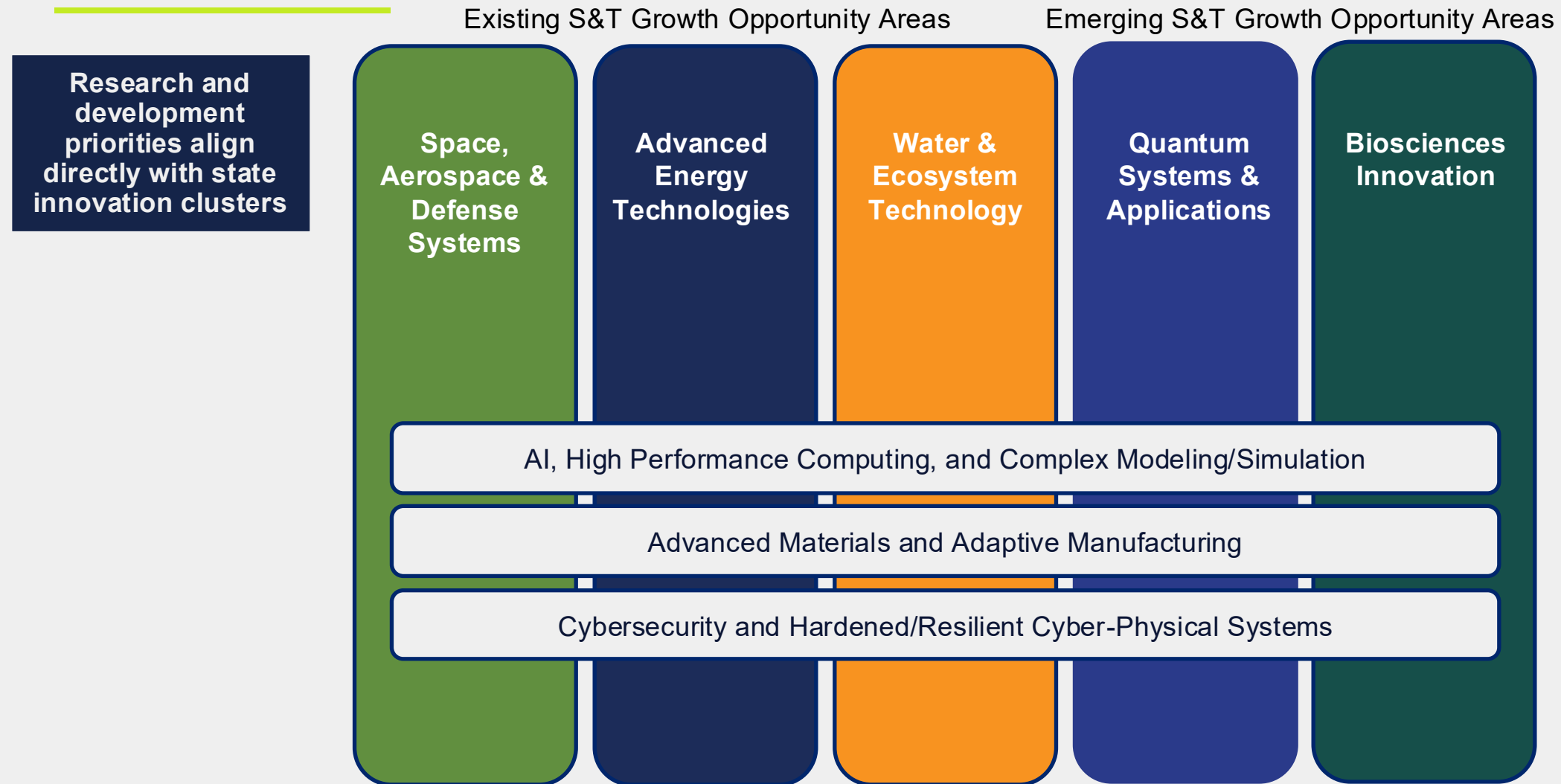
Research Centers and Testbeds link university R&D to state economic sectors

New Mexico's Science & Technology Roadmap

FIGURE ES-2. NEW MEXICO'S S&T GROWTH OPPORTUNITY AREAS



New Mexico Tech Science & Technology Roadmap



New Mexico Tech: Research Momentum

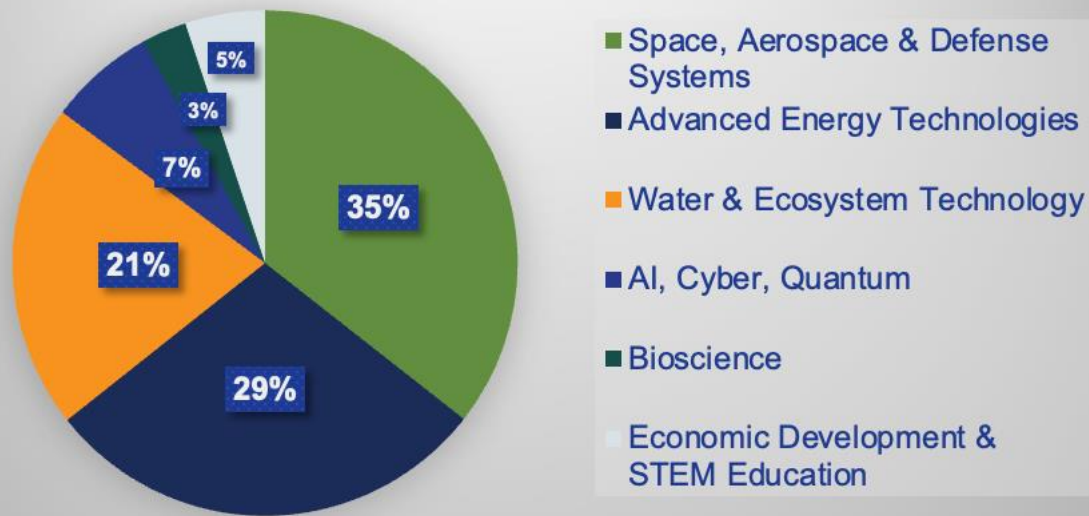
NMT has Major Strengths in all Science and Technology areas (99% of all Active Funding)

- Powers Innovation across New Mexico
 - Drives Economic Development
 - Expands Research-driven Economy
 - Enhances Workforce
- Strengthens Rural & Tribal Communities and Improves Overall Quality of Life

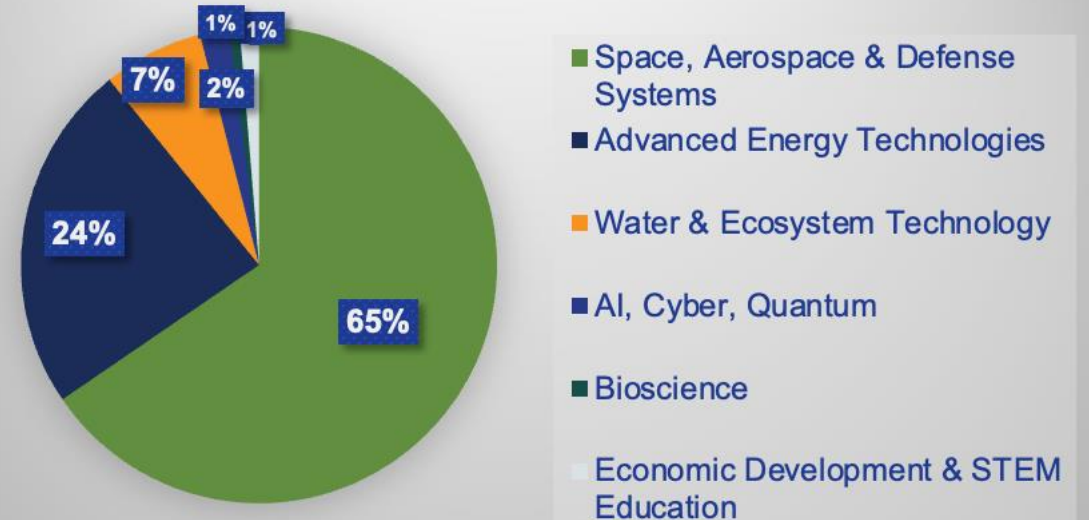
Research Momentum at NMT that stands out

- Unique testbeds for *Defense-National Security*
- Unique research facilities for *Space / Aerospace*
- Resource mapping and technology development for *Energy and Water*
- Excellence in *Cyber and Quantum* Computing and Materials
 - Institute for AI – AI Infrastructure

Percentage of # Active Awards



Percentage of Active \$ Funding



Space, Aerospace



Magdalena Ridge Observatory
2.4 Meter Telescope



Magdalena Ridge Observatory
Interferometer



Langmuir Laboratory for
Atmospheric Research

Faculty in 6 Departments and 3 Research Centers
Capabilities include: Satellite Remote Sensing, Space Surveillance, Missile Tracking, Small Satellite, UAS, Astronomy-discovery

Awards: 35 - \$89M (incl NASA, NSF)



Defense - National and Homeland Security



Energetic Materials
Research and Testing
Center



Institute for Complex
Additive Systems Analysis



Playas Research
and Training Center

Faculty in 6 Departments and 3 Research Centers

Capabilities include: Energetics, UAS/C-UAS, Advanced Manufacturing, AI/ML, Applied Cyber, Spectrum-Wireless 5/6G,

Awards: 64 awards - \$126M (Incl AFRL, SNL, LANL, DHS, Industry)



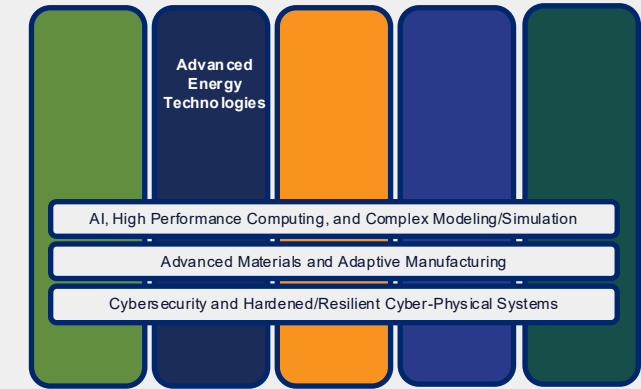
Advanced Energy Technologies



Bureau of Geology & Mineral
Resources



Petroleum Recovery
Research Center



Emerging Areas:
Critical Minerals
Geothermal

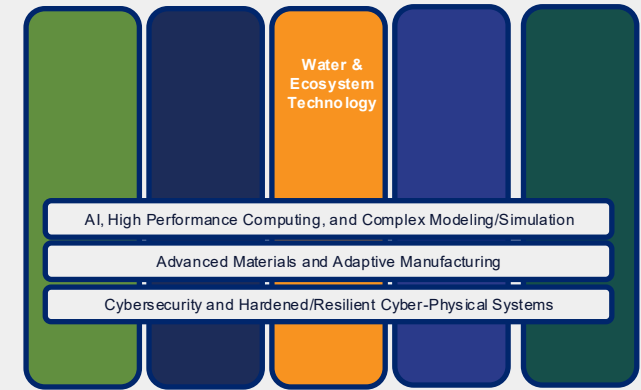
(incl DOE, LANL, SNL, Industry)

Faculty in 9 Departments and 2 Research Centers

Capabilities include: Carbon Capture and Sequestration Technologies, Produced Water Treatment Technologies, Membrane and Sensor Technologies, Computational Intelligence, AI-Enabled Subsurface Characterization and Simulation, Geothermal, Critical Minerals Technologies

Awards: 71 - \$78M (incl DOE, energy providers, oil and gas industry, SNL, university partnerships)

Water Ecosystem and Technology



Bureau of Geology & Mineral Resources



National Cave and Karst Research Institute (Carlsbad, NM)



Hantush-Deju National Hydrology Innovation Center

Faculty in 4 departments and 3 Research Centers

Capabilities include Water Resource Survey and Mapping, Water Resilience and Groundwater Security, Karst Systems and Groundwater Vulnerability, Atmospheric Science, AI-enabled Remote Sensing

Awards: 58 - \$22.4M (incl NSF, USGS, NPS)

Quantum Systems & Applications-AI & Cybersecurity



New Mexico
Cybersecurity
Center of Excellence



Institute for Complex Additive
Systems Analysis

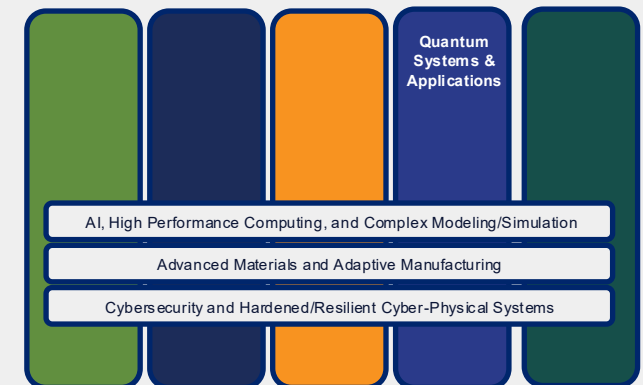


Raul Deju Institute for Artificial
Intelligence

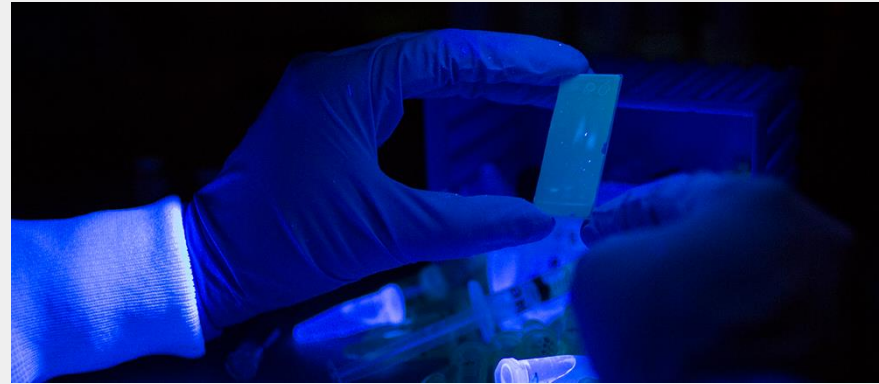


Faculty in 7 departments and 2 Research Center
Capabilities include AI/ML, Cybersecurity, Quantum materials and computing

Awards 19 - \$6.5M (incl NSF, SNL, Industry)



Biosciences



Faculty in 3 departments

Capabilities include Neuroscience, Biotechnology, Bioengineering, Chemical engineering, AI/ML

Awards 8 - \$2.3M (incl NIH, NSF, university partners)



Multi-Institutional Collaborations

New Mexico Tech – NMSU - UNM

Institutional Collaborations – New/Pending

Multi-Institutional
collaborations
ensure efficiency
and reduce
duplication

Space, Aerospace, Defense Systems:

- Southern NM–West TX Integrated Air & Missile Defense Initiative:
Multi-university partnership (NMT-NMSU-UTEP) to accelerate directed energy, electronic warfare, cyber operations and resilience, and advanced manufacturing technologies to strengthen integrated air and missile defense.

Quantum:

- National Quantum and Nanotechnology Infrastructure (NQNI) program: ENQUANT (Ecosystem of Networked QUantum Nanoscale Technology Facilities)
Collaborative Proposal to NSF with UNM-QNM-I, NMSU, CNM

Artificial Intelligence:

- TechAccess: AI-Readiness America
Collaborative Proposal to NSF with New Mexico Consortium, New Mexico Artificial Intelligence Consortium (includes NMT, NMSU, UNM and LANL)

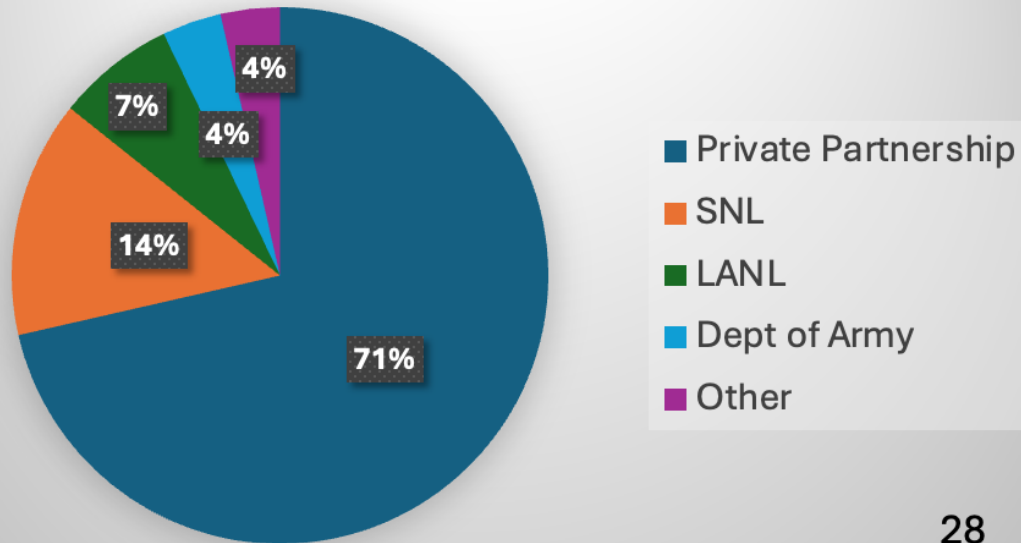
Economic Development

New Mexico Tech

EMRTC: New-Expanded Private Partners

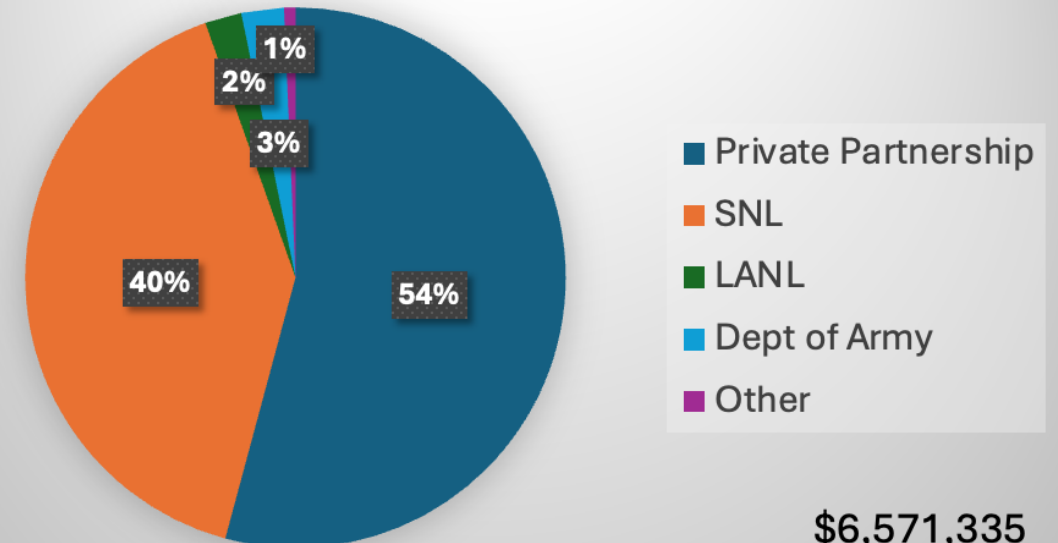
Research Centers
and Testbeds link
university R&D to
state economic
sectors

EMRTC New # Awards FY26



28

EMRTC New \$ Funding FY26



\$6,571,335

FY26: 20 new industry contracts with 13 companies:

*High demand for: Research and testing; Workforce development; Manufacturing and upscaling production
Hypersonic missile and rocket motor development; Unmanned aircraft systems (UAS) and Counter-UAS*

Development NMT Science and Technology Park



Crane digging u

Strategic Site Readiness

Preparing high-value sites for future economic development.



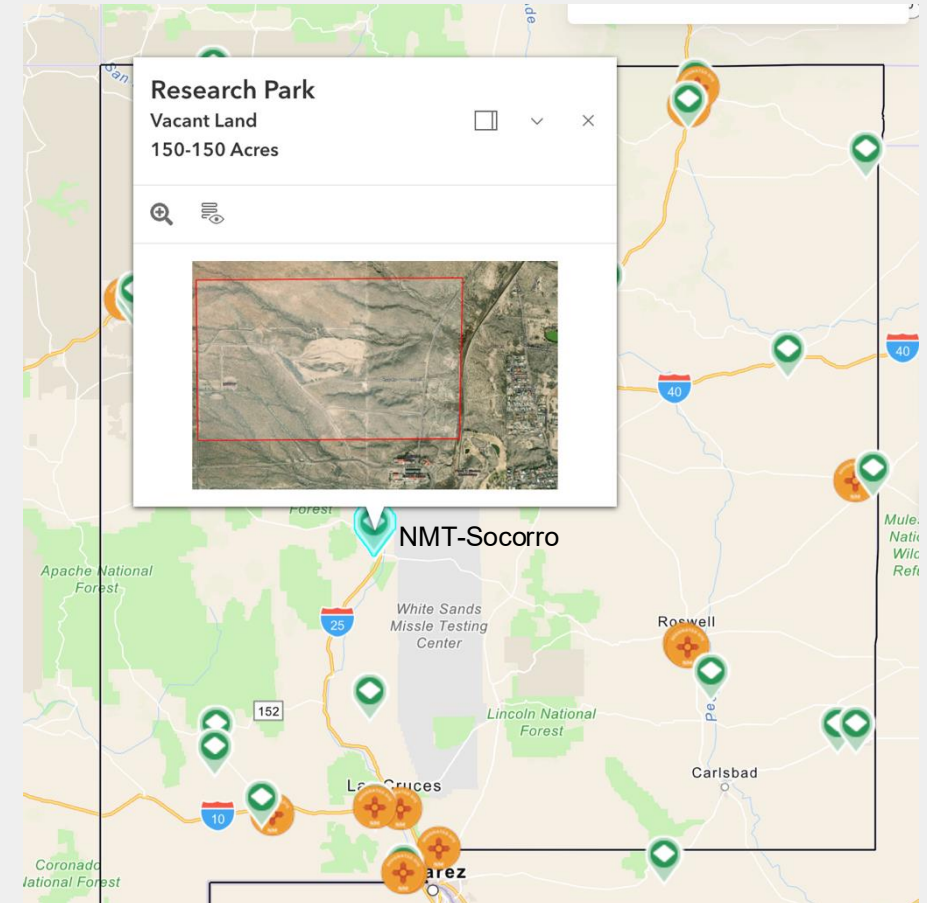
NMT Science & Technology Park

Strengths:

- Site is 545 total acres and rectangular in shape, suitable for a wide range of light and heavy industrial projects
- Within 1.6 miles of I-25 entrance ramp
- Potential synergies with New Mexico Tech; advantageous to industrial users looking to utilize internships, apprenticeships, and collaborations for research and development, testing and evaluation of new technologies

Needed for further optimization:

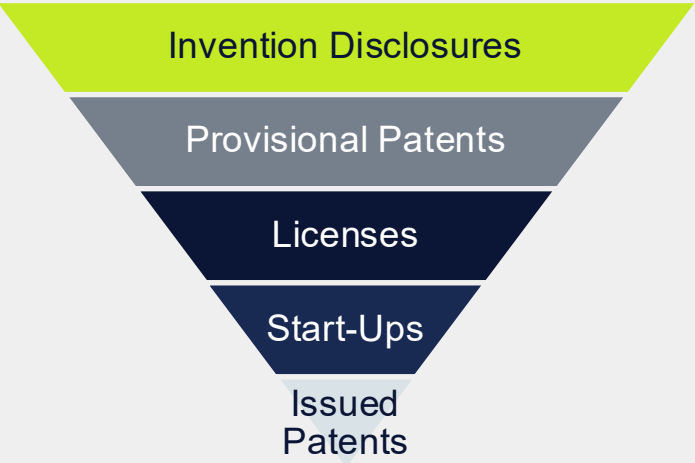
- ~57 acres are currently contiguous and developable, due to impacts from wetlands, floodplain: *Funding needed for remediation of wetlands*
- No due diligence studies have been completed on the property: *Funding needed for studies*



Intellectual Property and Commercialization

New Mexico Tech

NMT Office for Innovation Commercialization

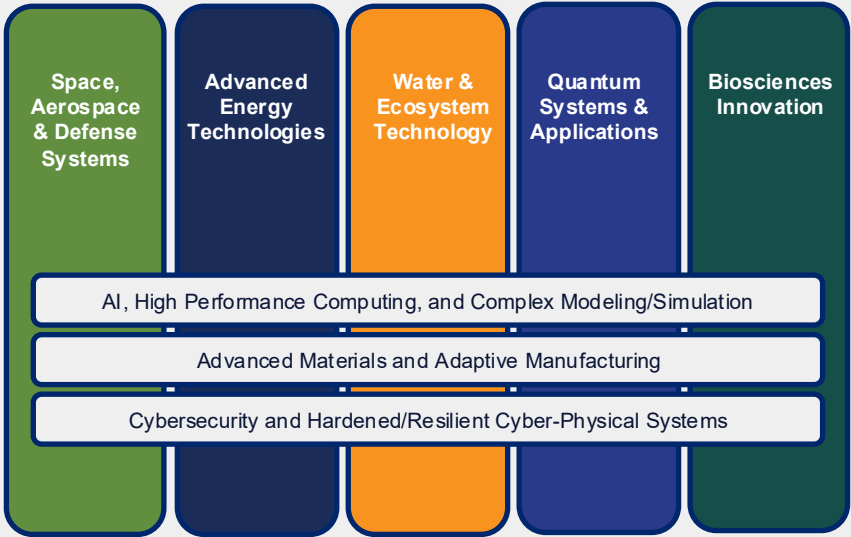


FY2026:
Increased Invention
Disclosures:
160%

Increased Provisional
Patents Filing:
150%

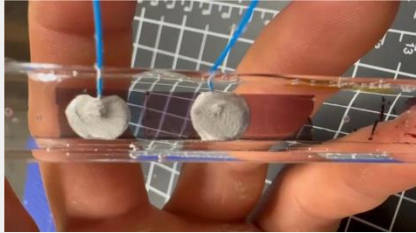
Patent Overview	# 47
Provisional Patents	6
Pending Patents	13
Issued Patents	28

Commercialization Overview	#
Licensed Patents	10
Start-Ups	1



Patent Overview- S&T Area	# 47
Biosciences	15
Advanced Materials & Adaptive Manufacturing	14
Space, Aerospace & Defense Systems	8
Adv Energy Technologies *	6
Quantum, AI, Cyber	3
Water Technology *	1

NMT Office Innovation Commercialization



Cutting-edge health technology company Start-Up: RD Health Sensing

Dr. Donghyeon Ryu, Ph.D., P.E.

Associate Professor,
Department Mechanical
Engineering &
Biotechnology Graduate
Program

Chief Science Officer and co-
Founder of RD Health Sensing



Novel, portable and scalable robust hollow fiber membrane- based desalination technologies to convert produced water as a sustainable water resource

Dr. Jianjia Yu, Ph.D.
NMT alum (Ph.D. Petroleum
Engineering, 2012)

Assistant Professor, Department
Chemical Engineering &
Head of the Petroleum Recovery
Research Center's (PRRC)
Produced Water group

PESCO (Process Equipment &
Service Company Farmington, NM)





Thank you - Questions

New Mexico Tech – Science and Technology