

New Mexico Tech-Edge Accelerator

An in-state R&D accelerator for commercialization, high-wage job growth, and mission-driven innovation

Patricia A. Sullivan, PhD | Interim Vice President

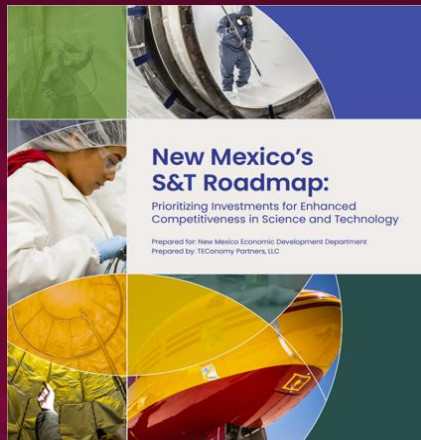
Amy Wagler, PhD | Director of Research Computing and Data Science

Office of Research, Creativity, and Economic Development



BE BOLD. Shape the Future.®
New Mexico State University

Closing New Mexico's Commercialization Gap



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NMSU-Fujitsu Partnership Gives New Mexico a First-Mover Advantage

A first-mover advantage connecting university talent, national laboratory expertise, and global technology leadership

01

Trusted, Sovereign AI

Builds New Mexico's capacity to lead in secure, trustworthy AI—advancing research, growing technical talent, and addressing mission-critical national needs.

02

Advanced Manufacturing + Edge

Accelerates next-generation Arm and edge technologies for real-time industrial, autonomous, and field applications.

03

Federal Alignment

Strategically positions New Mexico at the forefront of the DOE Genesis Mission—a \$3–5 billion national drive to deploy advanced AI across America's scientific and energy infrastructure—with coordinated engagement with Sandia and Los Alamos national laboratories, and Fujitsu's global innovation network.



NMSU + FUJITSU | STRATEGIC PARTNERSHIP

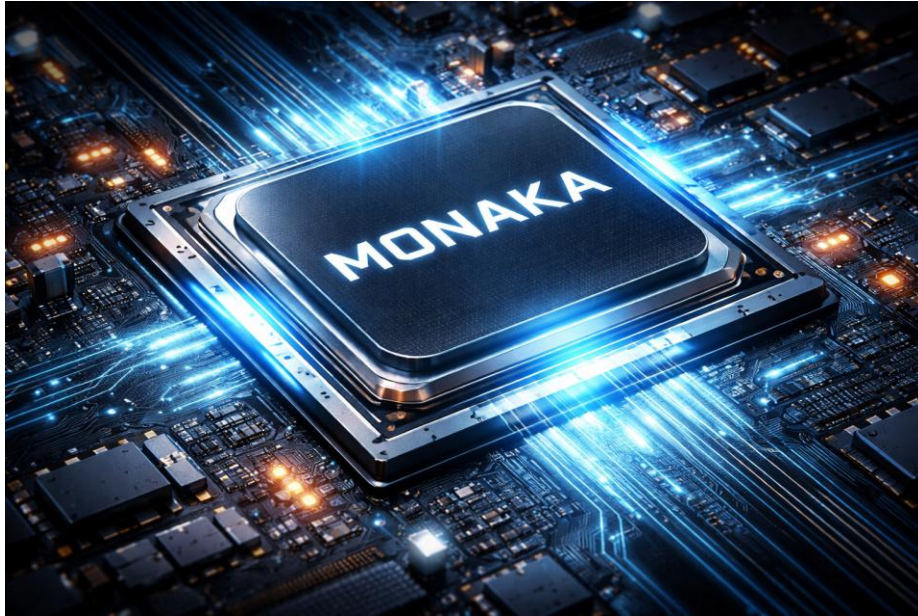
Strategic Impact

Transforms a state-level partnership into federal research growth, high-skilled workforce development, and national visibility for New Mexico.



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Nationally Exclusive Partnership for Fujitsu-MONAKA Arm Architecture



Exclusive, no-cost international technology co-design agreement with Fujitsu secured via a no-cost loan agreement supported by the Governor's Office; NMSU is currently the sole U.S. academic institution with pre-release access to 2nm 144-core MONAKA silicon.

Why ARM CPUs?: Delivers SVE2/SME2 vectorization and built-in Confidential Computing, allowing low-power, high-bandwidth AI inference at the edge that conventional x86 chips cannot match.

Complementing U.S. Accelerators: Engineered to pair natively with U.S. accelerator ecosystems via PCIe 6.0 and NVIDIA NVLink Fusion.



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Pre-Release Computing Access Creates a New Mexico Validation Advantage

The value is not the processor alone. It is the ability to co-design, test, and demonstrate applications before broad market availability.



ACCESS

Early validation

Test performance, security, and power efficiency before commercial release.

CO-DESIGN

Shape future systems

Provide application feedback that informs future processor and platform decisions.

EDGE READINESS

Compute where data is created

Support low-power, real-time inference for field, manufacturing, agriculture, and security environments.

ECOSYSTEM FIT

Complement U.S. accelerators

Pair CPU capability with accelerator ecosystems and high-bandwidth interconnects.

Technical asset that can anchor company recruitment, applied research, and workforce development in New Mexico.



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From Technology Partnership to New Mexico Impact

MISSION-DRIVEN INNOVATION

Solving Climate, Agriculture, Energy, and Security Challenges

- **Wildfire Edge Detection:** Processes field sensor data in real time to identify fires before spread.
- **Autonomous Agriculture:** Enables efficient robotic crop management under arid, power-constrained conditions.
- **Fusion-Energy Materials:** Accelerates simulation of material properties and nanoscale molecular dynamics.

COMMUNITY INFRASTRUCTURE

Delivering Solutions Where New Mexico Needs Them Most

- **CAMINO Collaborative:** Builds an advanced manufacturing ecosystem with statewide reach.
- **Remote Power Systems:** Extends resilient power to remote and rural applications.
- **Laguna and Alamo Projects:** Supports community water-development priorities.
- **Extension Services:** Connects expertise and resources to every county.

STATE IMPACT: STRONGER COMMUNITIES • RESILIENT INFRASTRUCTURE • HIGH-VALUE TECHNOLOGY APPLICATIONS



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State Capacity Creates Multiple Paths to Economic Return



Tech-Edge Accelerator connects projects, companies and workforce.

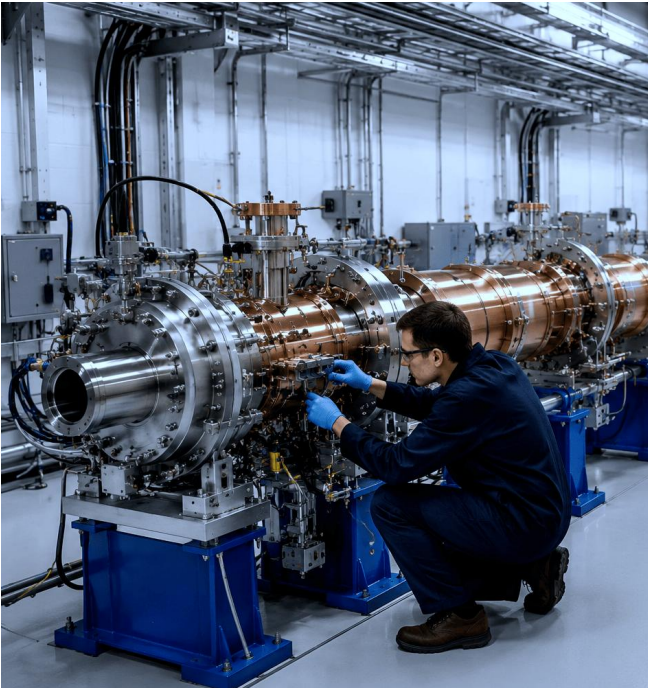
- **Accessible High-Performance Computing Infrastructure:** In-state R&D accelerator combining NMSU compute, SOTA ARM processors, and national lab co-design
- **Targeted Industry Center Model:** Directly aligns with the New Mexico Science & Technology (S&T) Roadmap
- **National Lab & Venture Integration:** Sandia and Los Alamos National Laboratories alongside Stout Street Capital's venture framework



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Technical Support Converts Startup Capital into Milestones

The accelerator lets founders spend scarce capital on evidence, prototypes, and customer validation instead of duplicative infrastructure.



TECHNICAL

Shared expertise

Applied computing, benchmarking, prototype engineering, and domain-specific validation.

FINANCIAL

Capital efficiency

Non-dilutive R&D support and shared infrastructure preserve investor capital for milestone execution.

COMMERCIAL

Executives-in-residence and venture partners strengthen business cases and pitch readiness.

STRATEGIC

In-state retention

Firms build relationships, technical teams, and operating capability inside New Mexico.



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Economic Multiplier

High-Wage Job Creation Multiplier: \$1M in research spending generates approximately 17 high-paying local technology jobs

3x On-Premises Cost Efficiency: Operating local on-premises computing infrastructure provides a financial ROI of 2.5x to 3.7x compared to commercial cloud providers

Dedicated ARM-architecture training: students and industry partners builds a future-ready tech workforce



Investment in local research computing infrastructure delivers verifiable economic returns and high-wage jobs.



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Providing technical support to start-ups



STOUT STREET

Stout Street LEVCAP Partnership
Embeds entrepreneurial scientists and founders directly within the lab, de-risking deep-tech AI and energy prototypes at 1/10th traditional commercial costs.

Non-Dilutive Funds: By using non-dilutive funds for R&D, the seed capital injected by an investor can be directed strictly toward milestones.

Domain-Expert Mentorship: Features Executives-in-Residence to guide startups toward pitch readiness.



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Tech-Edge Accelerator will Scale Industry

Mechanism	Impact on Start-ups and Tech Firms
Venture-capital integration (Stout Street LEVCAP)	Embeds entrepreneurial scientists and founders directly in the lab, providing early-stage capital, mentorship, and de-risking of deep-tech prototypes.
In-state R&D venture accelerator	Bridges the capital gap that normally forces NM companies to move out-of-state, retaining talent and fostering high-wage jobs.
Fee-for-service model	Generates a sustainable revenue stream that can be reinvested in commercialization support (prototype engineering, benchmark services, etc.).
Industry-led nonprofit governance	Gives private partners a seat at the table, aligning the lab's workload with market needs and accelerating product-to-market cycles.
Job-creation multiplier	An estimated \$1 M of research spending translates into about 17 high-paying jobs; the test-bed magnifies this effect as more projects launch.
Edge-computing focus on NM-specific challenges	Enables companies to develop solutions for wildfire detection, precision agriculture, and other regional problems, creating new market niches and employment.



Next Steps and Sustainability

State-Wide Industry Center: Transitions after the initial proof-of-concept into a state-chartered Edge Computing and Tech Accelerator.

Traded-Sector User Fees: Sustained by fee-for-service revenue charged to commercial defense, space, and agritech for local edge-compute validation.

- **Project-Backed Hardware Refreshes:** Reinvesting F&A indirect cost recoveries to fund ongoing hardware refresh without recurring funds.



ARROWHEAD CENTER®

Transitioning from a state-seeded pilot into a permanent, self-sustaining economic development asset.

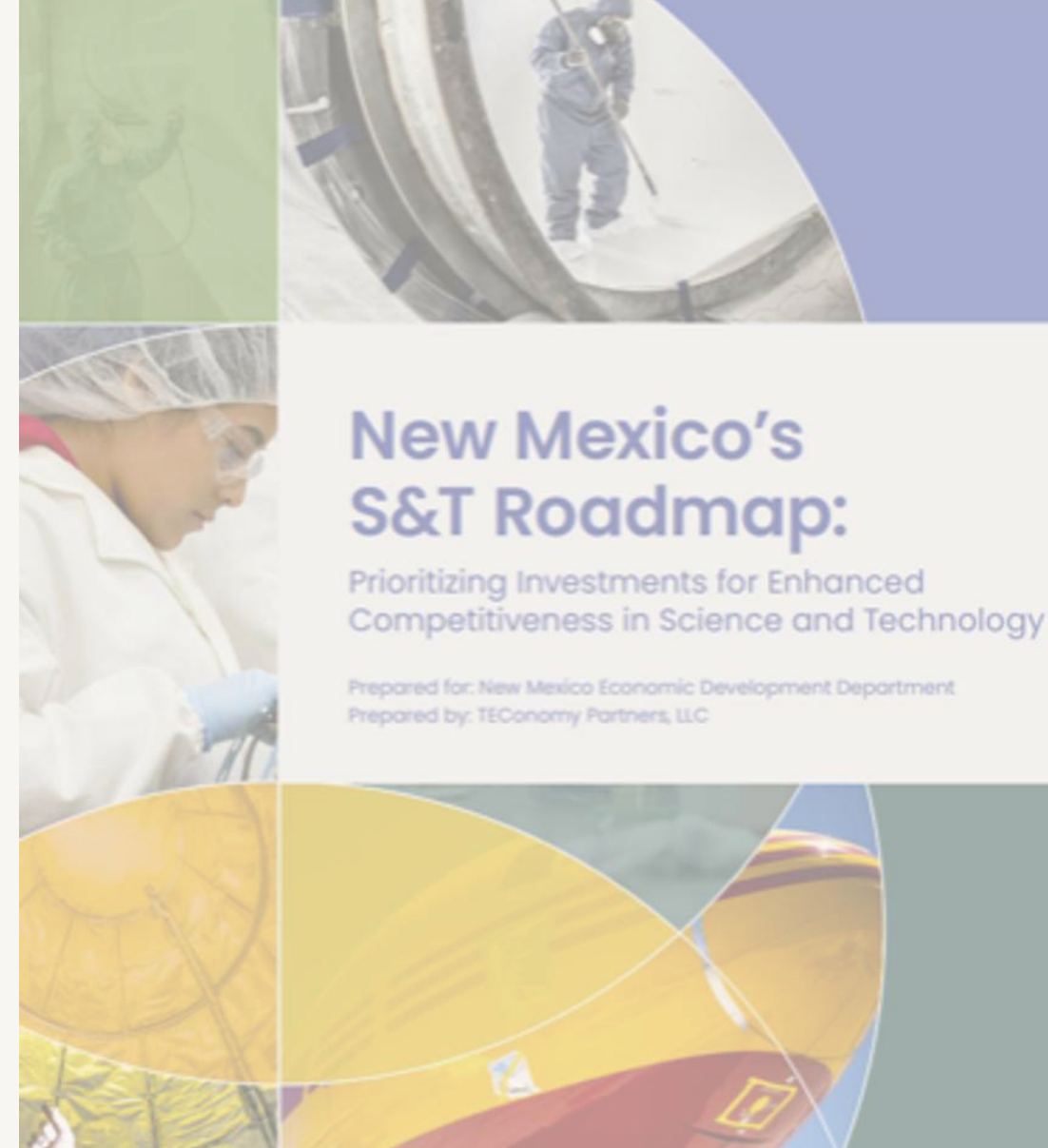


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THE OPPORTUNITY

Keeping New Mexico's Technology Value in New Mexico

State investment can connect unique computing access, research expertise, national-lab relationships, entrepreneurs, and industry demand into one commercialization platform.



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Contact Information

Amy Wagler, PhD

Director of Research Computing and Data Science

Office of Research, Creativity, and Economic Development

575-646-2481

awagler@nmsu.edu



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