

Quantum Briefing for Interim Committees

Why Quantum? • Why New Mexico? • Why Now?
and What's Next?

Why Quantum — Economy & Jobs



Projected to become a ~\$3.5T industry over time; durable, compounding spillovers across sectors.



Average quantum-industry salary ~ \$125,000; strong demand exceeds current supply (3 open positions for every qualified candidate).



~80% of roles do not require a PhD: technicians, machinists, welders, HVAC, metrology, test & evaluation.

Why Quantum — National Security

U.S. cannot be second: cybersecurity, signals, sensing, timing, and materials advantages are strategic.

‘Skeleton key’ risk to today’s cryptography; urgency to achieve quantum-resilient systems and U.S. leadership.

Dual-use trajectory mirrors semiconductors: early public investment → enduring commercial leadership.

Why Quantum — Applications



Sensing & clocks already delivering value (navigation, energy, space, defense).



Materials & chemistry acceleration (energy storage, catalysts, advanced manufacturing).



Healthcare/biopharma, aerospace, and grid optimization as early commercial applications.

Why New Mexico — Core Competencies



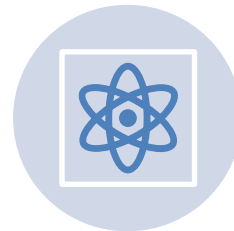
Legacy of applied physics leadership (Manhattan Project) and four Nobel prizes.



UNM: Among earliest QIS programs; deep theory + photonics; QNM-I to accelerate tech transfer.



Sandia: CINT, MESA, fabrication excellence; test & evaluation; quantum demo facility proposal.



LANL: Quantum/AI nexus expertise; Feynman lineage and theory strength.

Why New Mexico — Emerging Anchors



EDA Tech Hub (first federally funded quantum tech hub) with workforce & packaging efforts.



Quantinum Photonics R&D facility in Albuquerque; CNM photonics bootcamp pipeline.



Roadrunner Quantum Venture Studio (state-funded) with access to networks, dilution fridges, SIC-backed capital.



Advanced Packaging Facility (Elevate Quantum coalition) and Sandia Quantum Demonstration Facility.

Why Now — Momentum & Timing

01

18 MONTHS AGO:
PRIMARILY R&D
STRENGTH; TODAY:
ANCHORS ARRIVING,
CAPITALIZING ON
FEDERAL WINS.

02

TWO YEARS AGO TOO
EARLY; TWO YEARS
FROM NOW TOO LATE:
WINDOW TO LOCK IN
LEADERSHIP.

03

IEEE QUANTUM
CONFERENCE
ATTENTION; GROWING
CORPORATE INTEREST;
COMPANIES ARE
CALLING.

Federal Leverage — DARPA QBI

Not competitive: any firm meeting stage gates is eligible for funding.

Stage A: Utility-scale concept (~\$1M)

Stage B: R&D plan (~\$15M)

Stage C: Verify & Validate (up to ~\$300M per company)

State MOA + ~\$60M match over 4 years can unlock federal dollars and attract global players to build in NM.

Economic Development Flywheel



Anchors → supply chain → startups → talent → capital — reinforcing loop.

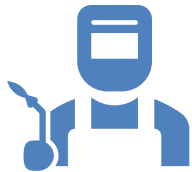


Reshoring opportunities in photonics, cryogenics, packaging, test, and specialty manufacturing.



Manufacturing demonstration + small-batch prototyping to compress iteration cycles for entrepreneurs.

Workforce — Broad & Inclusive



CNM bootcamps + UNM programs to deliver technicians, engineers, and operators.

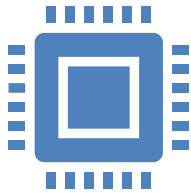


Place-based apprenticeships with anchor firms (e.g., photonics R&D) for hands-on training.



Career ladders from middle-skill roles into engineering and management over time.

Venture Studio — Commercialization Engine



Roadrunner Studio to spin out companies; access to quantum networks and dilution refrigerators.



Front door to SIC-backed funds (billions AUM) to finance seed through growth.



Years 2–4 funding bridges the valley of death; metrics: startups launched, follow-on capital, jobs.

Policy Actions — This Session

Reintroduce

Reintroduce 30% CapEx refund for quantum infrastructure/equipment with \$150M aggregate cap.

Resource

Resource the NSF Regional Engine roadmap milestones (packaging, workforce, demo facilities, marketing).

Complete

Complete MOA for DARPA QB

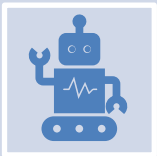
Closing & Call to Action



Quantum is the next great general-purpose technology — and New Mexico is built to lead.



With targeted action this session, we lock in federal leverage and private-sector momentum.



Approve the policy package; execute the MOA; deploy the training & commercialization stack.