

Regional Innovation Ecosystem

Boulder/Colorado Region Assessment

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National and Economic Security Need

- Leadership in industries of the future is vital to U.S. economic competitiveness and national security in the 21st Century
- The pace of innovation is accelerating globally enabled by revolutionary technology advances
- The U.S. must adopt creative, new ways to rapidly transition laboratory R&D in emerging technologies to marketplace innovations
- Innovation and entrepreneurship is often, although not always, highly concentrated in regions referred to as innovation ecosystems
- NIST has a unique mission to promote U.S. innovation and industrial competitiveness, and is industry's National Laboratory



21st Century Innovation Ecosystems

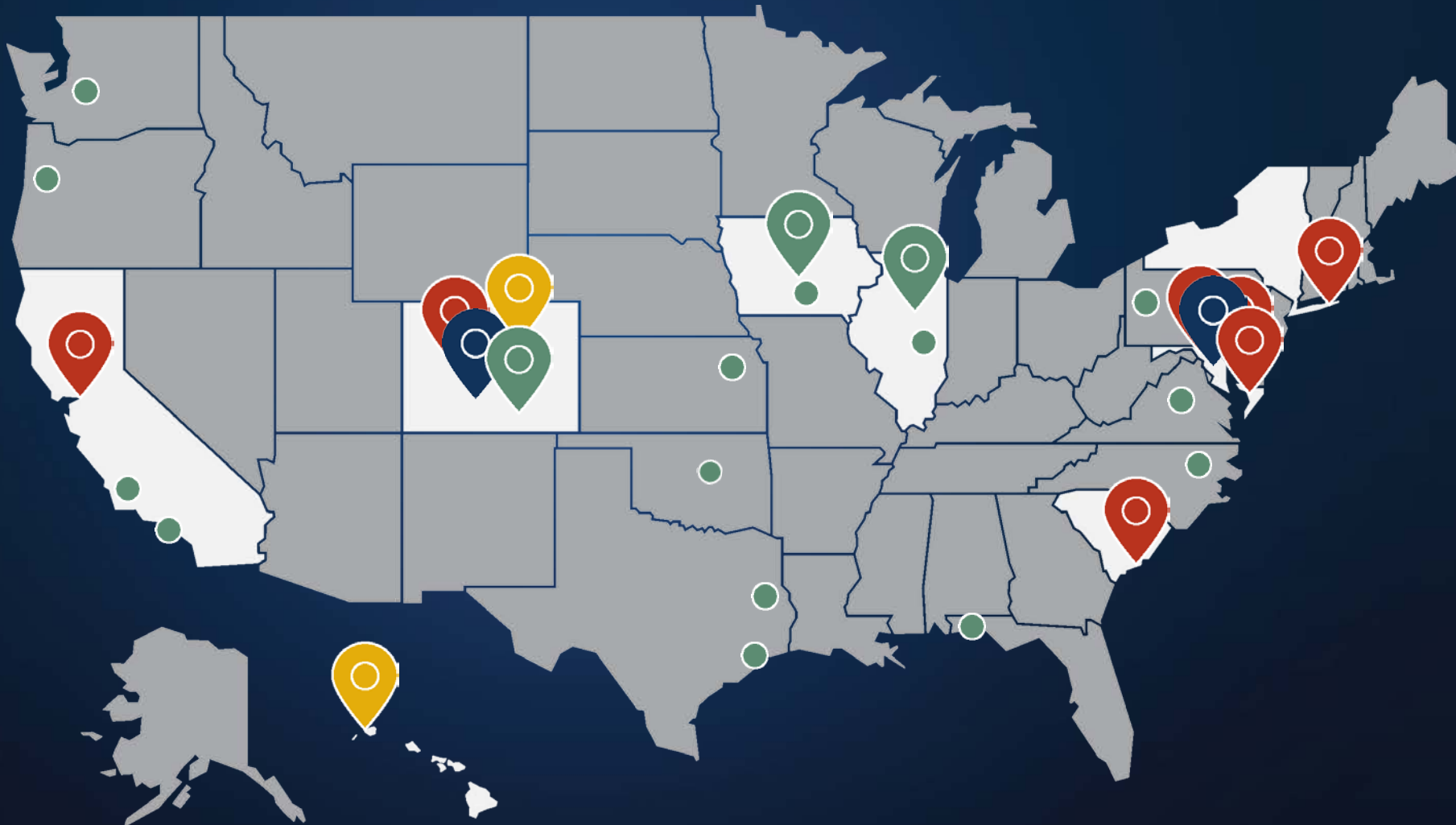
We've come a long way since 1980....

Federal Government, Universities, Federal Labs, Research Organizations, Entrepreneurs remain at the heart of innovation ecosystems

- Networks
- Agility
- Co-development
- Proximity
- Resource access
- Talent

Enable evolving paradigms and models of U.S. innovation and Lab-to-Market system

NIST Joint Institute and Center Locations



Gaithersburg, MD
Boulder, CO



Joint Institutes and Centers



National Cybersecurity Center of Excellence

Institute for Bioscience & Biotechnology Research

Joint Institute for Quantum Computer Science

Joint Quantum Institute

JILA

Hollings Marine Laboratory

Brookhaven National Laboratory

Joint Initiative for Metrology in Biology

Atomic Clock Signal Stations



NIST Kauai HI WWVH

NIST Ft. Collins CO WWV

NIST Centers of Excellence

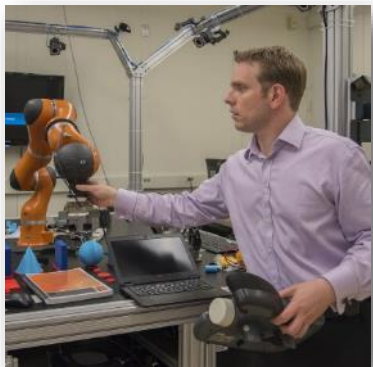


Forensic Science

Disaster Resilience

Advanced Materials

NIST Director's Charge



Advanced
Manufacturing



Quantum
Science



Engineering
Biology



Artificial
Intelligence



Engage

Recommend *purposeful* and *regular* mutually beneficial engagements needed to strengthen NIST's innovation and entrepreneurial ecosystem



Act

Recommend actions NIST should take for the benefit of American society through ecosystem engagement

Leverage Strengths and Best Practices



Partnerships

Existing and new mutually beneficial partnerships between NIST and regional stakeholders



Lab-to-Market

Collaborative development with industry partners, investors, and the research community



Entrepreneurship

Entrepreneurial activities by NIST staff and associates and support for venture formation and development



Learning & Support

Experiential learning, mentoring and coaching, and innovation hubs

Thoughtful and Deliberate Approach

NIST



BENCHMARKING

Benchmarking with selected research universities and federal laboratories

REGIONAL RESOURCES

Review of potential innovation & entrepreneurship partners/resources in the Boulder/Colorado region

ASSESSMENT

Assessment of how NIST fits into the regional innovation ecosystem, and NIST's equities/needs

Scope of Assessment

Better understand the perspectives of *NIST staff and managers* as well as *NIST stakeholders* about the *existing state* and *future opportunities*:

- What is NIST's *role* in the regional innovation and entrepreneurial ecosystem?
- In what ways do innovation and entrepreneurship entities in the region *interact* with NIST? Who are the key players? How do they benefit?
- In what ways—*formal and informal*—does NIST interact with the innovation and entrepreneurial ecosystem in the region? Who are the key players? How do we benefit?
- Is NIST fully engaged with this regional ecosystem in ways that support NIST's mission? What are the *gaps*? What can we do to help fill them?
- Are NIST staff and associates knowledgeable about the resources available to them in the region? What are the *gaps*? What can we do to help fill them?
- What other information would be useful for us to consider as part of this baseline assessment?
- Who else should we talk to as part of this baseline assessment?

Assessment Process

Assessment

(In Progress)

One-on-one and small group meetings with NIST staff and managers and NIST stakeholders

- NIST Boulder site director, division chiefs, and scientists
- University leaders (VC, Directors)
- Entrepreneurs and venture investors (CEOs/Presidents)
- Economic development leaders (industry, state, local)
- Others (MEP, CO-LABS, SBDC)

Analysis

Recommendations to NIST Director based on analysis of inputs and perspectives of NIST staff and managers and NIST stakeholders

- Address systemic barriers
- Leverage best practices
- Advance major opportunities aligned with NIST priorities

Next Steps

NIST Director's decision and guidance on next steps based on assessment findings and recommendations

- Develop and implement action plan

Thank you!



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PARTNERSHIP CENTERS