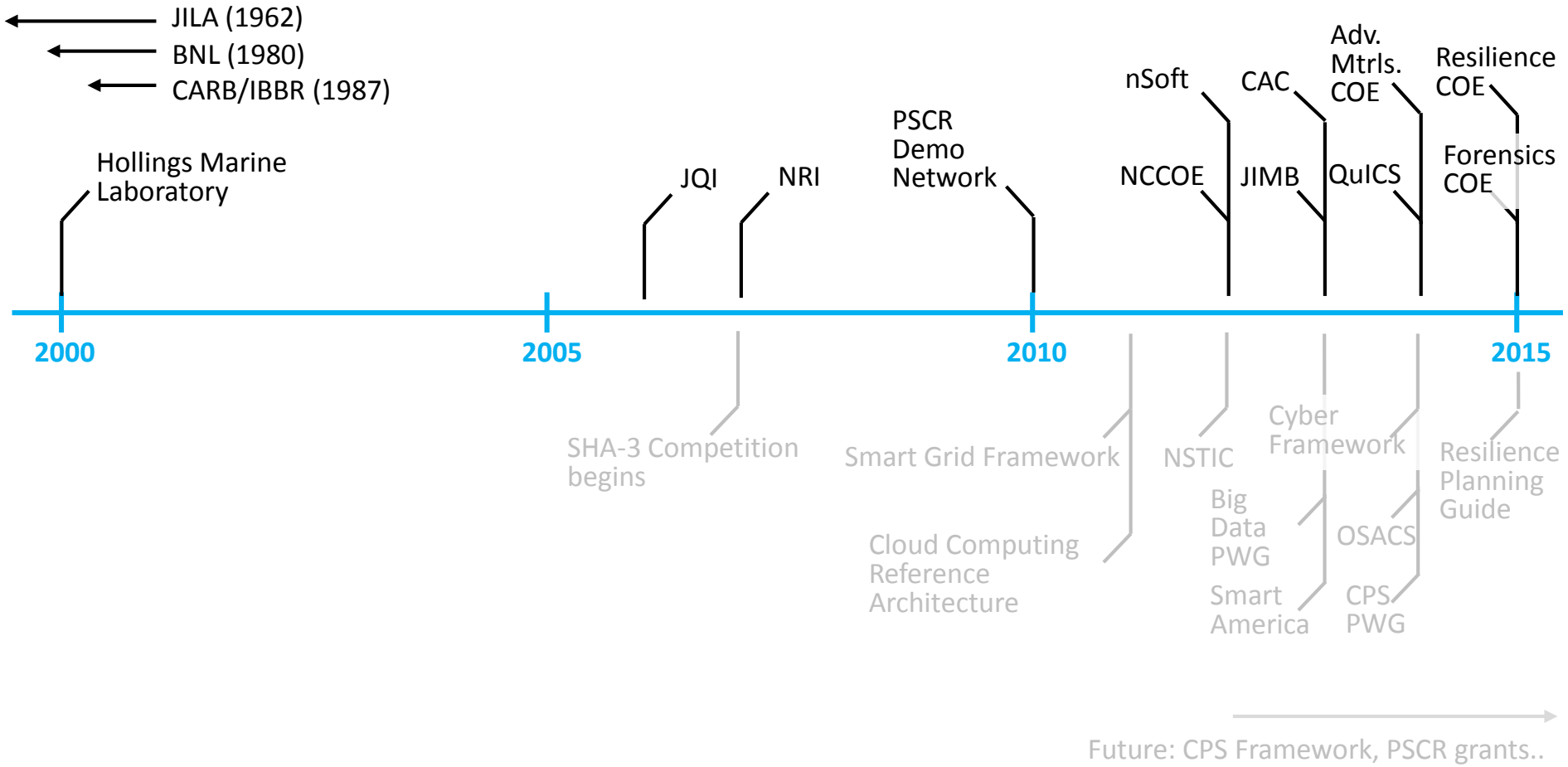
National Institute of Standards & Technology

NIST: Promoting U.S. Innovation and Industrial Competitiveness

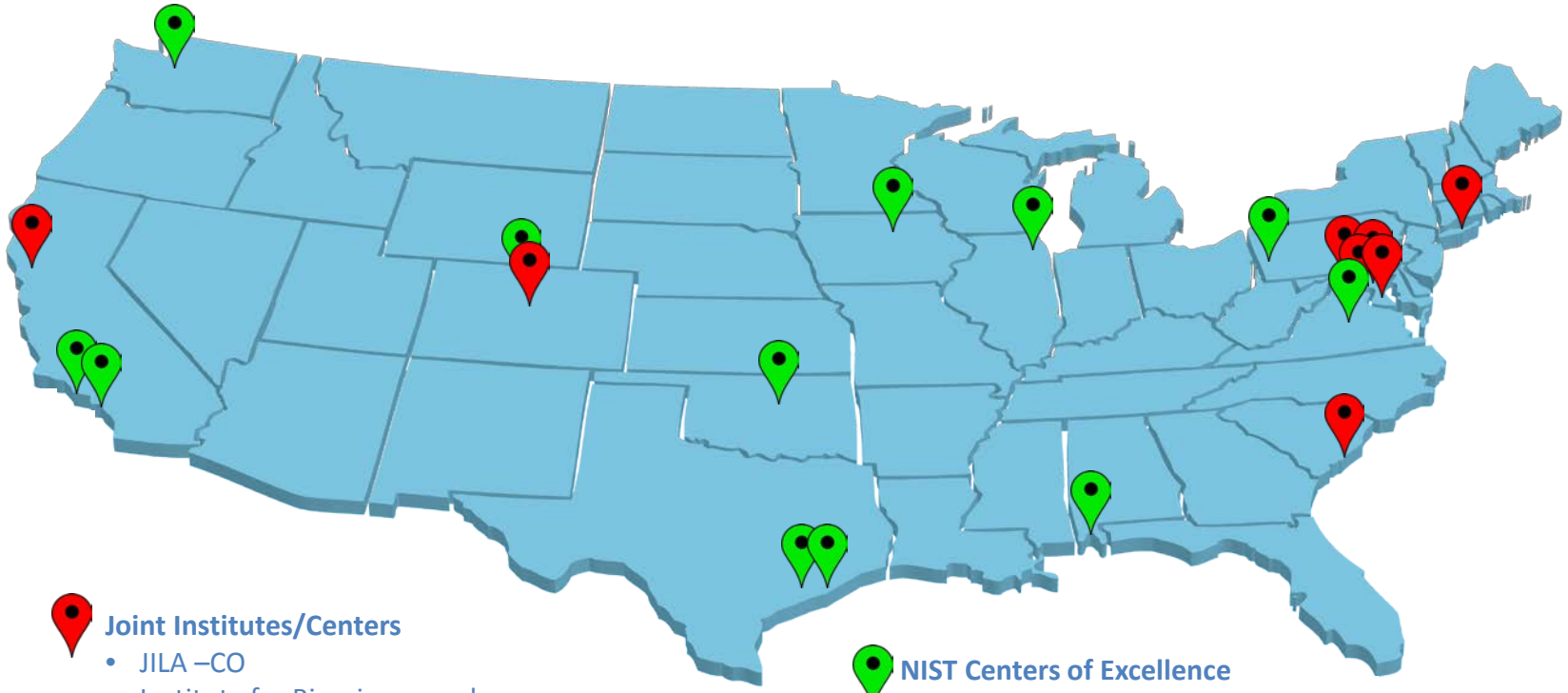
Evolution of NIST Partnerships

Growth of Partnerships at NIST



Joint Institutes and Centers of Excellence

Leveraging the nation's best experts in a range of S&T fields



Joint Institutes/Centers

- JILA –CO
- Institute for Bioscience and Biotechnology Research—MD
- Hollings Marine Laboratory—SC
- Joint Quantum Institute, Joint Center for Quantum Information and Computer Science—MD
- National Cybersecurity Center of Excellence—MD
- Joint Institute for Metrology in Biology—CA
- BNL-NIST partnership–NY

NIST Centers of Excellence

- Center for Hierarchical Materials Design (CHiMaD)—IL
- Center for Statistics and Applications in Forensic Evidence (csafe) –IA, PA, VA, CA
- Center for Risk-Based Community Resilience Planning —CO, OK, TX, WA, AL, CA

NNMI-NIST Labs connections

	America Makes	DMDII	LIFT	Power America	IAMCI	Flex-hybrid Electronics	Integrated Photonics	Fibers and Textiles	Smart Manufacturing
Strong technical programs in the NIST Labs	✓	✓	✓	✓	✓	✓	✓	✓	✓
NIST Labs staff contributed to FOA / vision / review	✓	✓	✓	✓	✓	✓	✓	✓	✓
NIST Labs staff serves in advisory roles	✓	✓	✓	✓	✓	|-------TBD-------|			
Active collaborations between NNMI and NIST Labs	✓	✓	✓	✓	✓	|-------TBD-------|			

NIST Partnerships – Benefits

- Provides access to expertise that NIST could otherwise not be able to find and leverage.
- Ability to enter into technical areas with significant potential for growth and possible risks without developing formal in-house capabilities.
- Provides a pipeline for future skilled workforce.
- Ability to work with academia and industry in a flexible and effective manner.
- Diverse models allow for flexibility to structure the collaboration to more efficiently address challenges.

Partnerships – Limitations

- Launching partnerships can be challenging and time consuming due to lack of specific authorities and existing requirements.
- Loss of NIST culture at off-site centers; embedded staff may not feel connected to NIST.
- Comparing and evaluating partnerships to determine overall impact and when/if to disengage.
- Need to understand the balance between in house and off-site expertise and the long-term impact to NIST.

Key Questions for the VCAT

- From your perspective, are these partnerships an effective means for engaging and collaborating with industry and/or academia to address NIST's strategic priorities?

- With flat R&D budgets on the horizon what is the appropriate balance of direct investment in NIST core research programs versus investment in partnerships to most effectively complement NIST research capabilities?

- Given NIST's research portfolio and current suite of partnership models, are there other flexibilities and tools we should consider to address priority research areas and retain technical expertise to support the NIST mission?