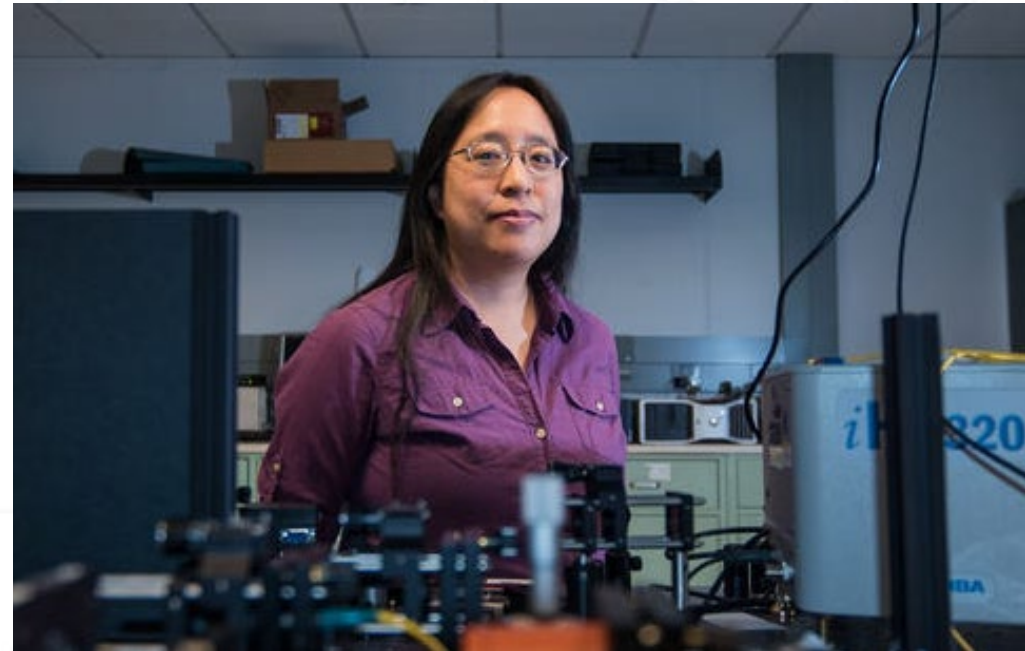


NIST ITL Update

Jim St. Pierre
Acting ITL Director
March 1, 2023

Cultivating Trust in IT and Metrology



NIST Leadership Changes



Credit: NIST

Dr. James Olthoff
NIST Chief Metrologist
Director's Office

NIST Leadership Changes



Dr. Charles H. Romine

Associate Director for
Laboratory Programs
(transition in late Feb)



Mr. James A. St Pierre

Acting Director, Information
Technology Laboratory
(transition in late Feb)

NIST Leadership Changes



Dr. Marla L. Dowell

Metrology Program Director,
CHIPS R&D

Boulder Site Director
(transition soon)



Mr. Dereck Orr

Acting Director,
Communications Technology
Laboratory
(transition soon)

NIST Director's Priorities



CHIPS Act At A Glance

Creating Helpful Incentives to Produce
Semiconductors for America Act

CHIPS for America Fund
\$50 billion allocated over 5 years

Financial Incentives Programs

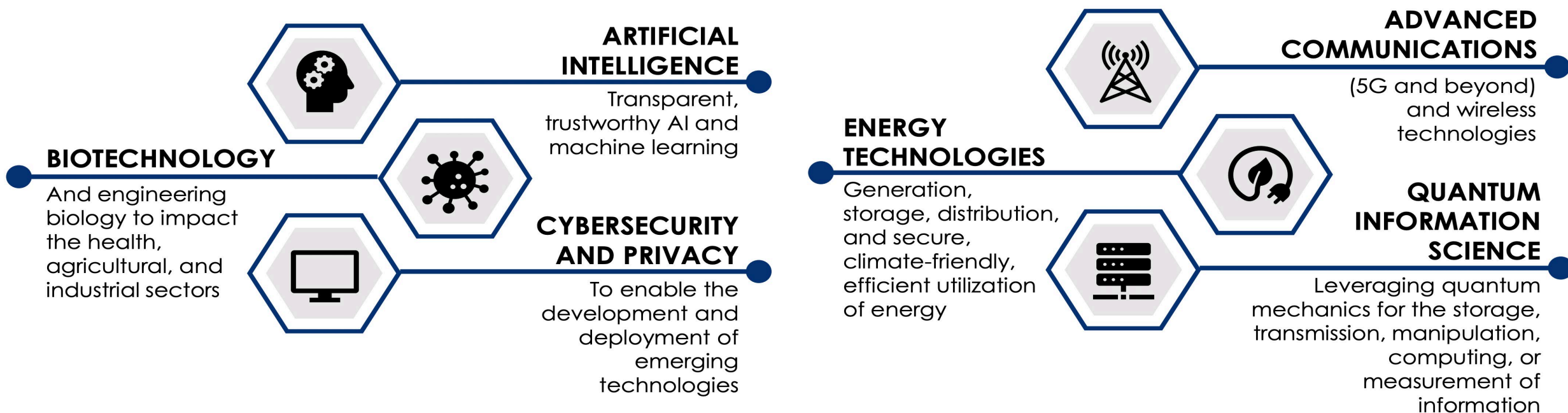
\$39 billion

Research and Development

\$11 billion

NSTC • APMP • MFG USA Institute(s)
NIST Metrology program

Workforce Development



Artificial Intelligence (AI) Update

NIST



Credit: science.house.gov

Rollout of the NIST AI Risk Management Framework (AI RMF) 1.0 & AI RMF Playbook 1.0

In-person launch with Deputy Secretary Graves and Federal, industry leaders

January 26, 2023



Credit: @SecRaimondo

3rd U.S./EU Trade & Technology Council (TTC) ministerial at Univ. of Maryland College Park

Joint Roadmap on Evaluation and Measurement Tools for Trustworthy AI and Risk Management

December 5, 2022

Working on the global scale to promote trustworthy AI

Artificial Intelligence

Cultivate trust in the design,
development, use and governance
of artificial intelligence
technologies and systems.



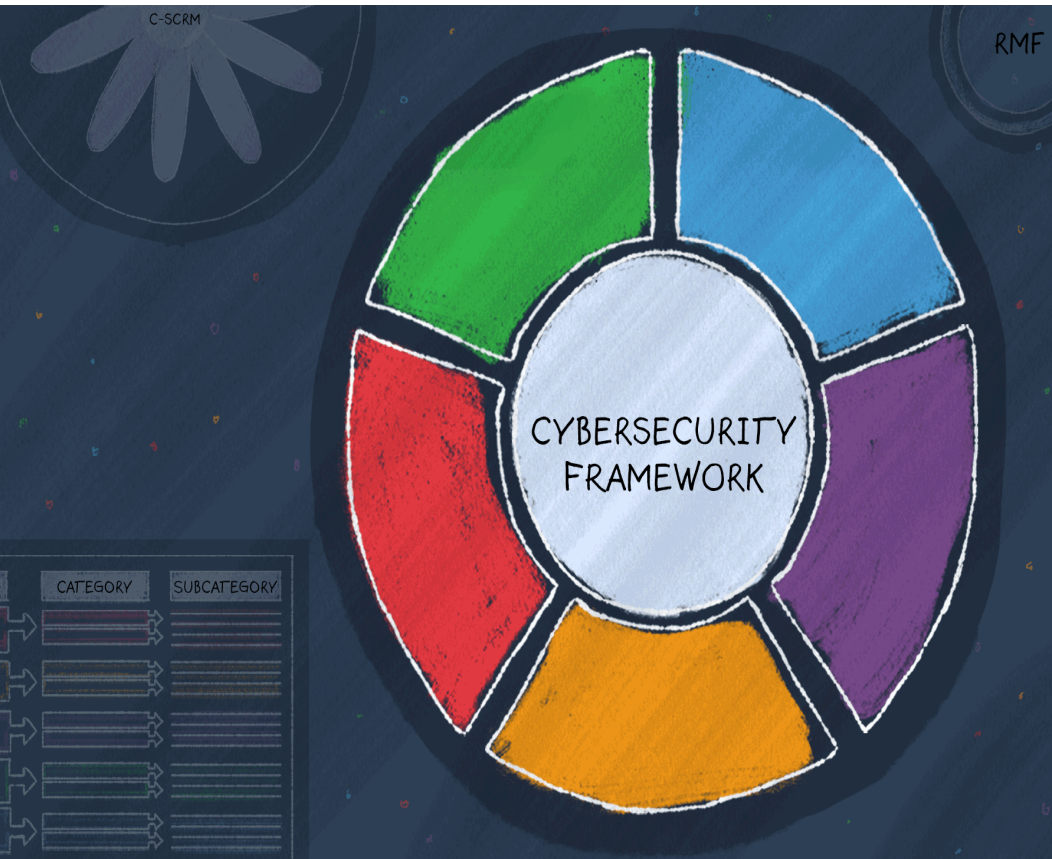
Guidance and Tools
AI Risk Management Framework, AI
Standards



Research and development National AI
Institute on Trustworthy AI



Lead and Convene
National AI Advisory Committee, TTC,
and more.



- **Released CSF 2.0 Concept Paper on 1/19/23)**
- Seeking additional input on structure and direction to inform draft CSF 2.0
- Comments requested by 3/3/23
- **Hosted second virtual workshop and two in-person working sessions (2/22, 2/23)**

<https://www.nist.gov/cyberframework>

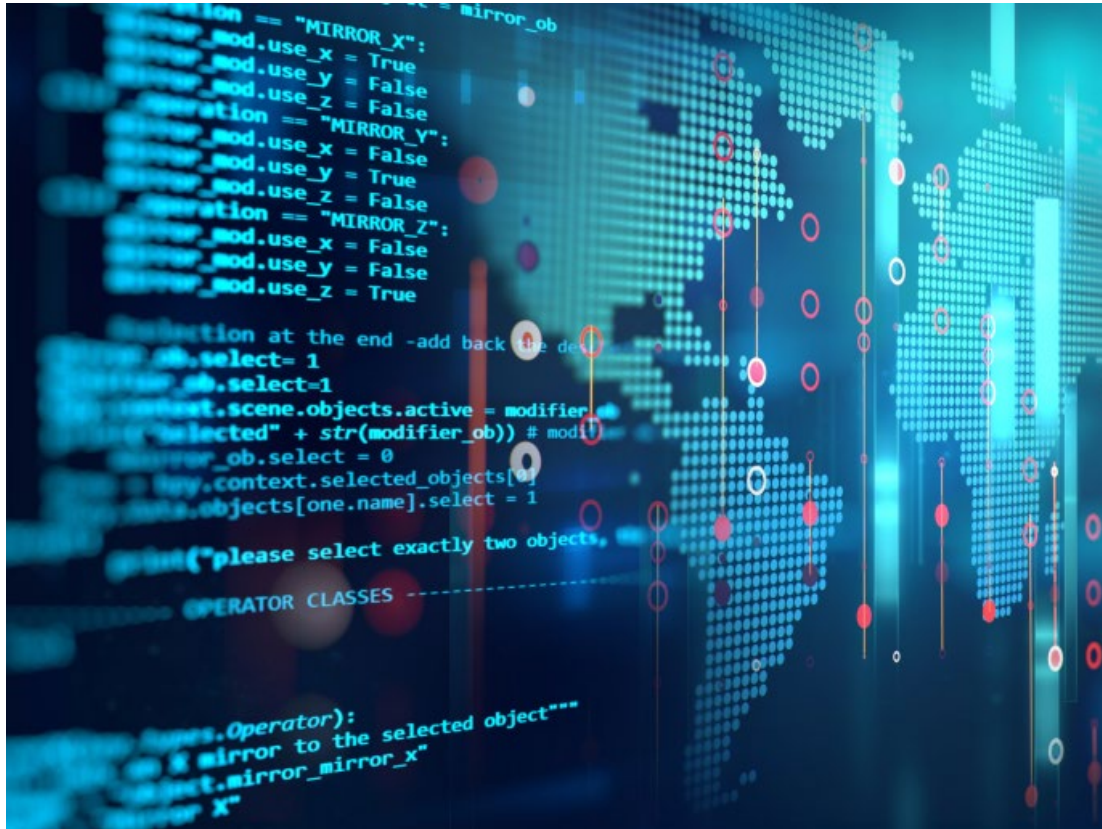
Identity and Access Management

- Issued draft Digital Identity Guidelines suite (SP 800-63-4 DRAFT) for public comment on 12/16/22. Comments due 3/24/23.
- Provides process and technical requirements for meeting digital identity management assurance levels for identity proofing, authentication, and federation.
- Seeks to:
 - Advance Equity
 - Emphasize Optionality and Choice for Consumers
 - Deter Fraud and Advanced Threats
 - Address Implementation Lessons Learned



Credit: N. Hanacek, B. Hayes/NIST

Encryption Updates:



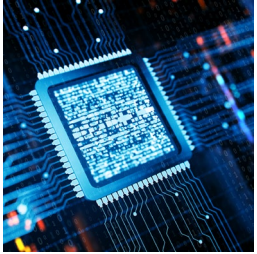
FIPS 186-5

Light Weight Selection

Multi-Party Threshold Schemes

Retire the SHA 1 Hash

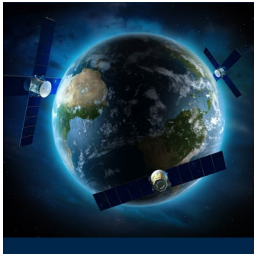
NCCoE Activities - Examples



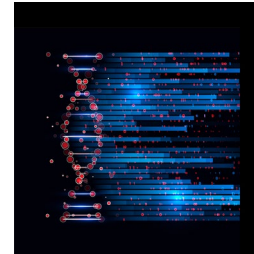
Supply Chain Assurance



Migration to PQC



**Hybrid Satellite Networks
Cybersecurity**



**Cybersecurity of Genomic
Data**



5G Cybersecurity

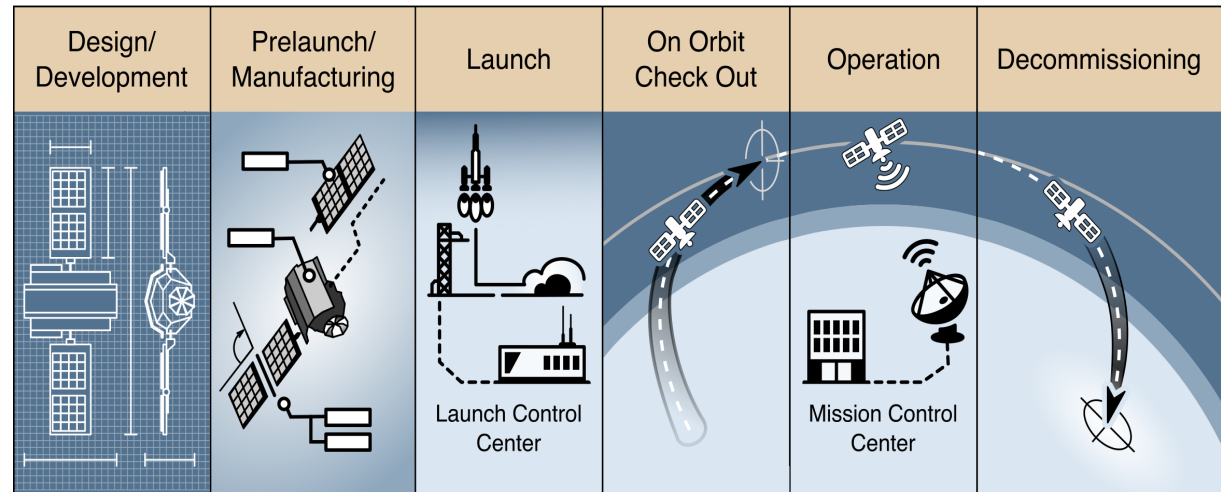


**Securing Water and
Wastewater Utilities**

<https://www.nccoe.nist.gov/>

New and Emerging Areas of Interest

- Space Cybersecurity
- Automotive Cybersecurity
- Cybersecurity of Genomic Data
- Privacy Enhancing Technologies
- Research Security
- Cybersecurity Measurement
- ...



2022

Celebrating 75 years of applied math and statistics at NIST

2022

Celebrating 50 years of Cybersecurity research at NIST

On September 29th, ITL launched the [NIST Cybersecurity Program History and Timeline](#)

2023

Celebrating 60 years of Biometrics research at NIST

Take A Walk Through Time

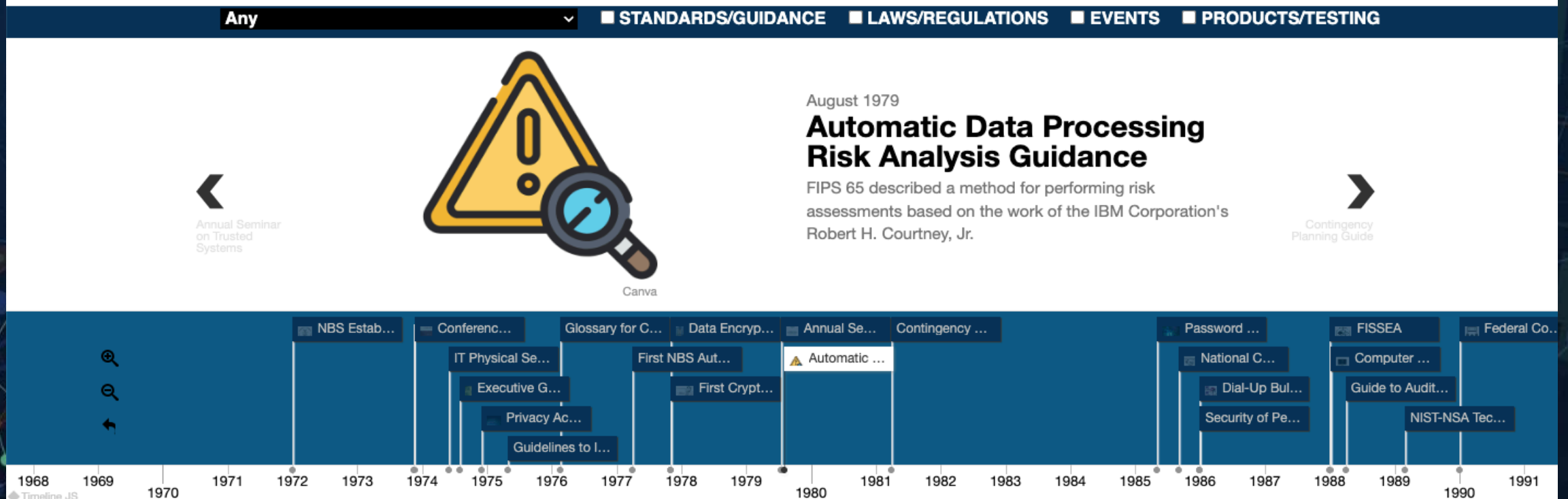
NIST Cybersecurity Program History and Timeline

For 50 years, NIST—formerly the National Bureau of Standards (NBS), until 1988—has conducted cybersecurity research and developed cybersecurity guidance for industry, government, and academia. Since 1972, NIST has made extraordinary advancements in cybersecurity, leading the effort to the current state of technology that exists today.

To highlight many of these accomplishments and honor the hard work and dedication by NIST's cybersecurity staff, NIST has developed the NIST Cybersecurity Program History and Timeline. The timeline provides an overview of the major research projects, programs, and ultimately, NIST's cybersecurity history.

This history has been compiled by bringing together several sources of information, including written contributions from and interviews with current and former NIST employees, the Annual Reports on cybersecurity produced by NIST starting in 2003, and current and past NIST webpages and publications.

Also see our [50th Anniversary of Cybersecurity at NIST](#) site for events, blogs, and other resources!



Some Recognitions

Commerce Medal Awards: Gold/Silver

Laurie Locascio Elected AAAS Fellow

Locascio was nominated for her "distinguished leadership of multidisciplinary science and technology programs in government and academia."

NIST's Information Technology Image Group Were Recognized with the Service and Leadership Award at the 2022 Federal Identity Forum

Drs. Kamran Sayrafian and Raghu Kacker named fellows of the Washington Academy of Sciences

