Unleashing American Innovation

Return on Investment (ROI) Initiative Update
Lab-to-Market Cross Agency Priority (CAP) Goal

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PRESIDENT'S MANAGEMENT AGENDA

Federal R&D Investment

- The **Federal government invests approximately $150 billion per year in R&D**:
  - ***~1/3*** invested at over 300 Federal laboratories
  - ***~2/3*** invested at universities and industry R&D institutions
- To produce economic gain and expand a strong national security innovation base, the results of this investment must be put to **productive use** through:
  - ***applied research*** and ***services to the public***
  - ***transfer to private companies to create new products and services***

Lab-to-Market CAP Goal

- Lab-to-Market is a cross agency priority (CAP) goal of the recently released **President's Management Agenda** to modernize government for the 21st century.
  - ***Improve Transfer of Federally-Funded Technologies from Lab-to-Market.***
- The **Lab-to-Market CAP Goal** is co-led by the Department of Commerce via NIST and the White House Office of Science & Technology Policy (OSTP).
- NIST, in coordination with White House's OSTP, will advance the President's Management Agenda and its Lab-to-Market CAP Goal through the **ROI Initiative**.
- The **National Science and Technology Council Lab-to-Market Subcommittee** will coordinate, review, and implement interagency priorities for this CAP Goal.

ROI Vision and Goal

(L to R): Michael Kratsios (WH/OSTP), Walter Copan (U/S NIST), Wilbur Ross (Commerce Secretary), Margaret Weichert (Deputy Director OMB), and Andrei Iancu (U/S USPTO)

VISION: Unleash the innovation power of America into our economy

GOAL: Maximize the transfer of federal investments in science and technology into value for America

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meet current and future economic and national security needs in a rapidly shifting technology marketplace and enhance U.S. competitiveness globally

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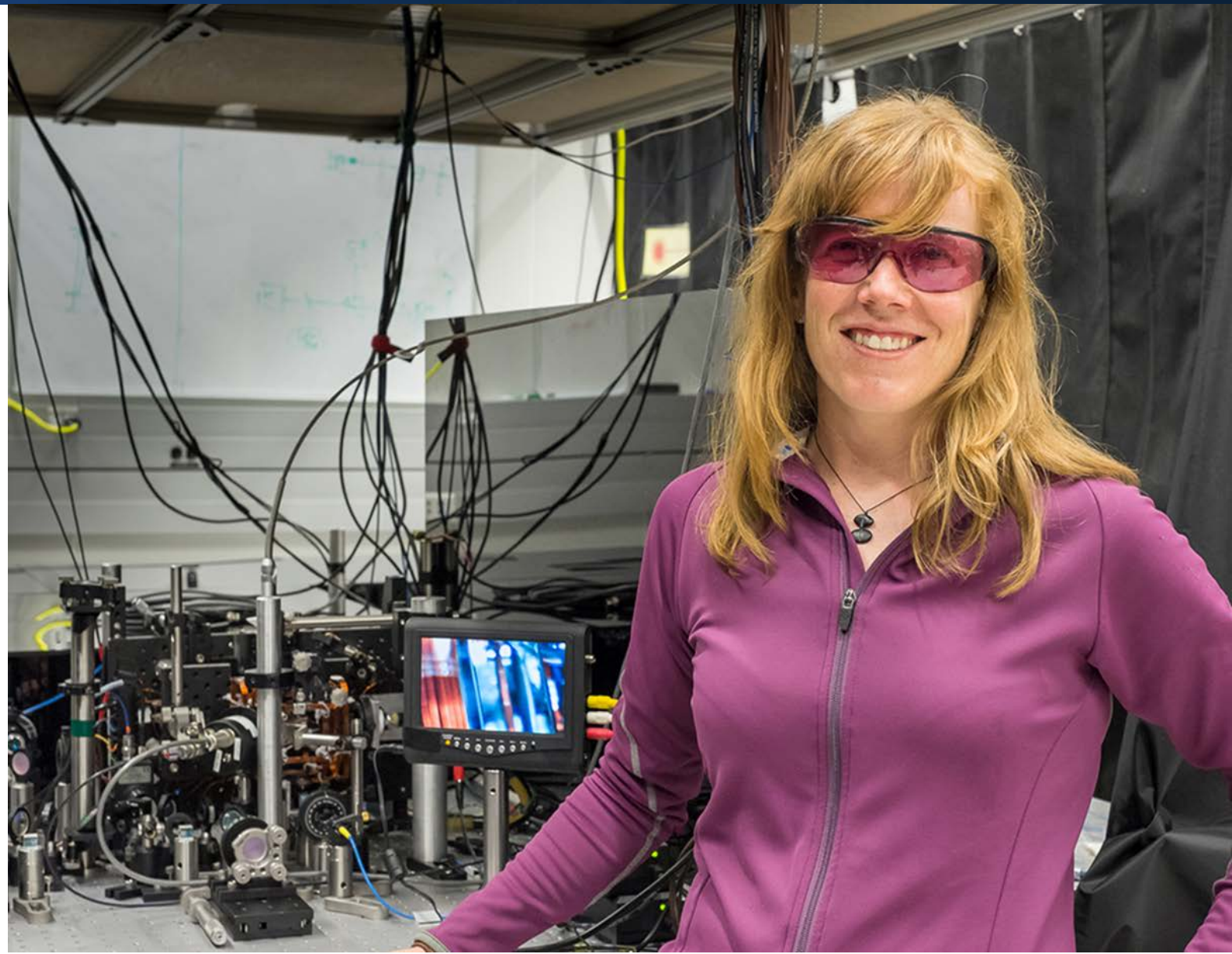
attract greater private sector investment to create innovative products, processes, services, as well as new businesses and industries

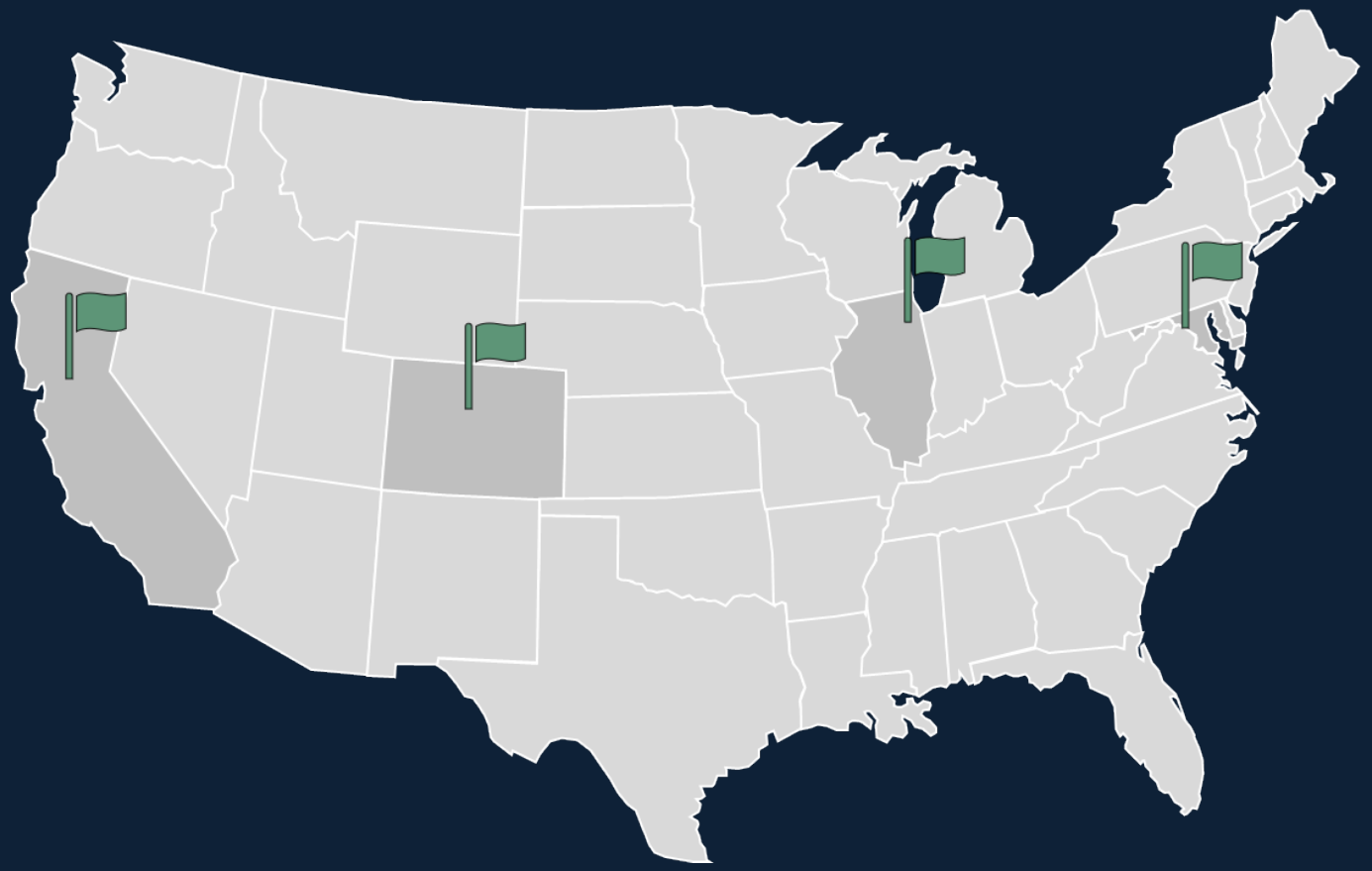
ROI Initiative Objective

Assess, streamline, and accelerate the transfer of technology from Lab-to-Market:

- Identify **critically needed improvements** to Federal technology transfer policies, practices, and efforts
- Seek **broad input** from Federal R&D, intellectual property and technology transfer stakeholders



ROI Initiative - Outreach



Unleashing American Innovation Symposium

April 19, Washington, DC

Request for Information

May 1 – July 30

ROI Public Meetings

May 17 – San Jose, CA

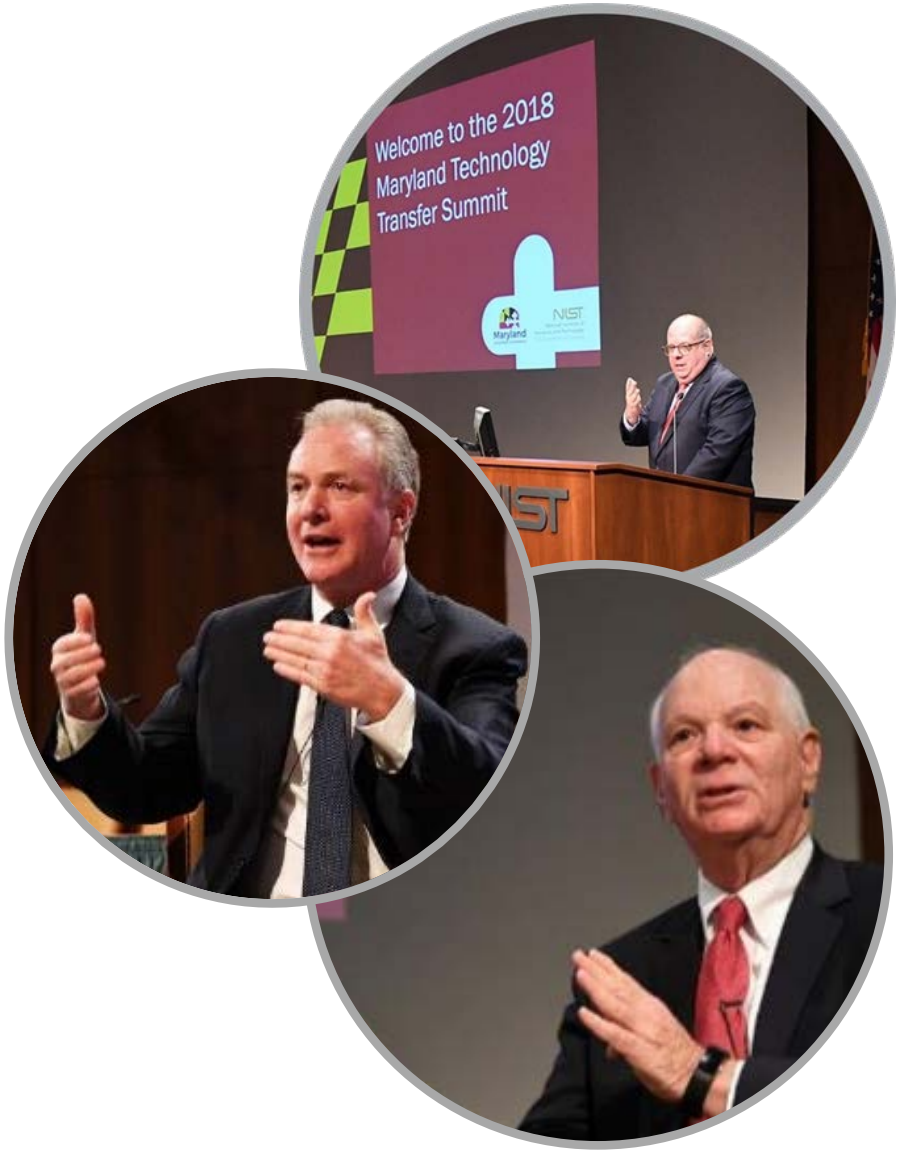
May 21 – Denver, CO

May 31 – Chicago, IL

June 14 – Gaithersburg, MD

ROI Sources of Information

- Four main **Public Forums** totaled 341 registered attendees
- 104 written comments received in response to **Request for Information**, representing thousands of stakeholders
- Comments and public forum attendance represented a broad cross section of stakeholder community, including universities, industry, government agencies, individuals
- Other information sources: **Maryland Technology Transfer Summit** hosted by NIST (April 20, 2018), extensive **stakeholder engagement**, and extensive review of **prior reports and studies**



Examples of Systemic Challenges

Inefficient Interface Conditions

Word Cloud of RFI Responses

- Difficulty negotiating IP terms and indemnification provisions
- Inconsistent practices and interpretation of authorities across USG
- Inability to copyright software and digital products developed by USG-operated labs
- Challenges in protecting trade secrets and know-how in collaborations with Federal laboratories
- Concern about march-in rights and government use license
- Conflicts between Federal, state and corporate requirements create challenges in building partnerships, consortia
- Challenges for Feds to engage in entrepreneurial activity or support
- Conflict of interest provisions that make it difficult for Feds to access resources needed to support technology commercialization
- Better metrics and methods to evaluate ROI outcomes and impacts arising from Federal R&D investment
- …

ROI Next Steps

August / September / **October**	November / December	January / February
• Analysis of inputs/studies with interagency participation • *Prepare Draft ROI Green Paper* with planned actions (e.g., practices & procedures, policies, executive/regulatory/ legislative) • Interagency review of *Draft ROI Green Paper*	• ***Public Release of Draft of ROI Green Paper*** • Final revisions to *ROI Green Paper* • Begin final clearance process for *ROI Green Paper*	• *Publish Final ROI Green Paper* • Final CAP Goal milestones (announced Q1 FY 2019 on *performance.gov*) • Initiate implementation actions / activities • Initiate broad outreach and dissemination to industry, university, and federal stakeholders

NIST ROI Team


Credit: Peter Cutts

- Walter Copan (Director, Champion)
- Phil Singerman (Associate Director for Innovation & Industry Services)
- Paul Zielinski, Courtney Silverthorn, Charles Na (Technology Partnerships Office)
- Henry Wixon, Dorianna Andrade (Office of Chief Counsel for NIST)
- Kevin Kimball (Chief of Staff)
- Jason Boehm, Heather Evans (Program Coordination Office)
- Gail Porter, Jennifer Huergo, Mary-Lou Norris (Public Affairs Office)
- Jim Schufreider, Kari Reidy (Congressional & Legislative Affairs Office)
- Greg Strouse (Deputy Associate Director for Management Resources)
- Dave Cranmer (Manufacturing Extension Partnership)
- Tammy Clark (Director's Office)
- Shyam Sunder (Senior Science Advisor)

ROI Initiative Information

Federal Register and ***Press Release*** Announcement of
RFI and ***Public Forums***
Video Recording of ***Unleashing American Innovation Symposium***
Slide Decks from ***Public Forum*** Presentations

ROI Final Green Paper and ***RFI Responses*** (early 2019)

www.nist.gov/tpo/ROI

PRESIDENT'S MANAGEMENT AGENDA

NIST

Thank you!

QUESTIONS?

Visiting Committee on Advanced Technology
October 16, 2018

Background Information

PRESIDENT'S MANAGEMENT AGENDA

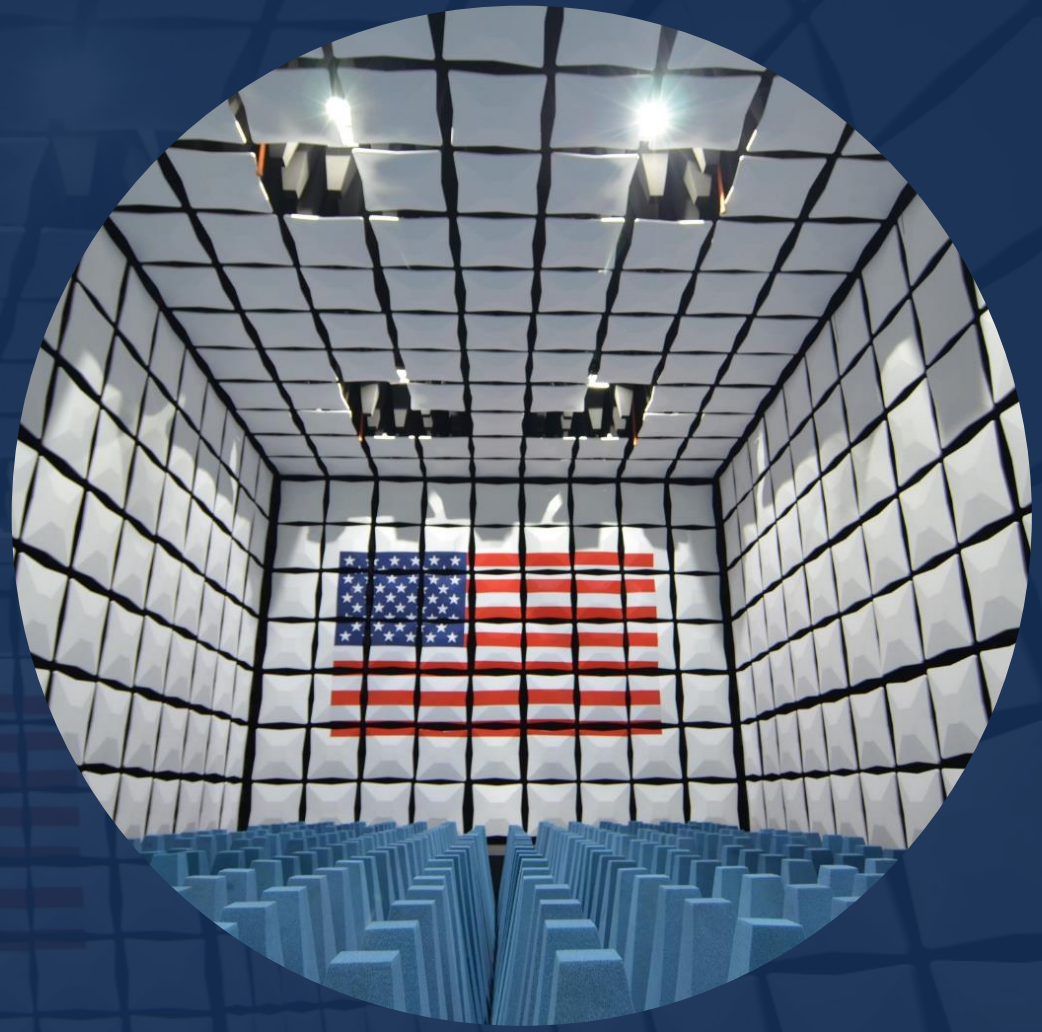
ROI Request for Information

NIST

Which **core Federal technology transfer principles and practices** should be **protected**, and which should be **adapted or changed***?*

What are the **systemic challenges** to effective transfer of technology, knowledge, and capabilities resulting from Federal R&D, and what are the **solutions**?

What are **other ways to significantly improve transfer of technology, knowledge, and capabilities** resulting from Federal R&D, and what **changes to practices, policies, regulations, and legislation** are required?



NIST and Tech Transfer

- Policy coordination and promulgation of technology transfer regulation
- Lead for Interagency Workgroup for Technology Transfer (11 agencies) and Interagency Workgroup for Bayh-Dole
- Annual reports for the President, the Congress, and OMB on technology transfer across federal agencies
- Lead in Lab-to-Market NSTC Subcommittee
- Host Agency for the Federal Laboratory Consortium for Technology Transfer

Credit: Peter Cutts

Unleashing American Innovation Symposium, April 19, 2018

NIST has a unique role in promoting and reporting on the overall strength of federal technology transfer efforts

ROI Planned Actions → CAP Goal Implementation

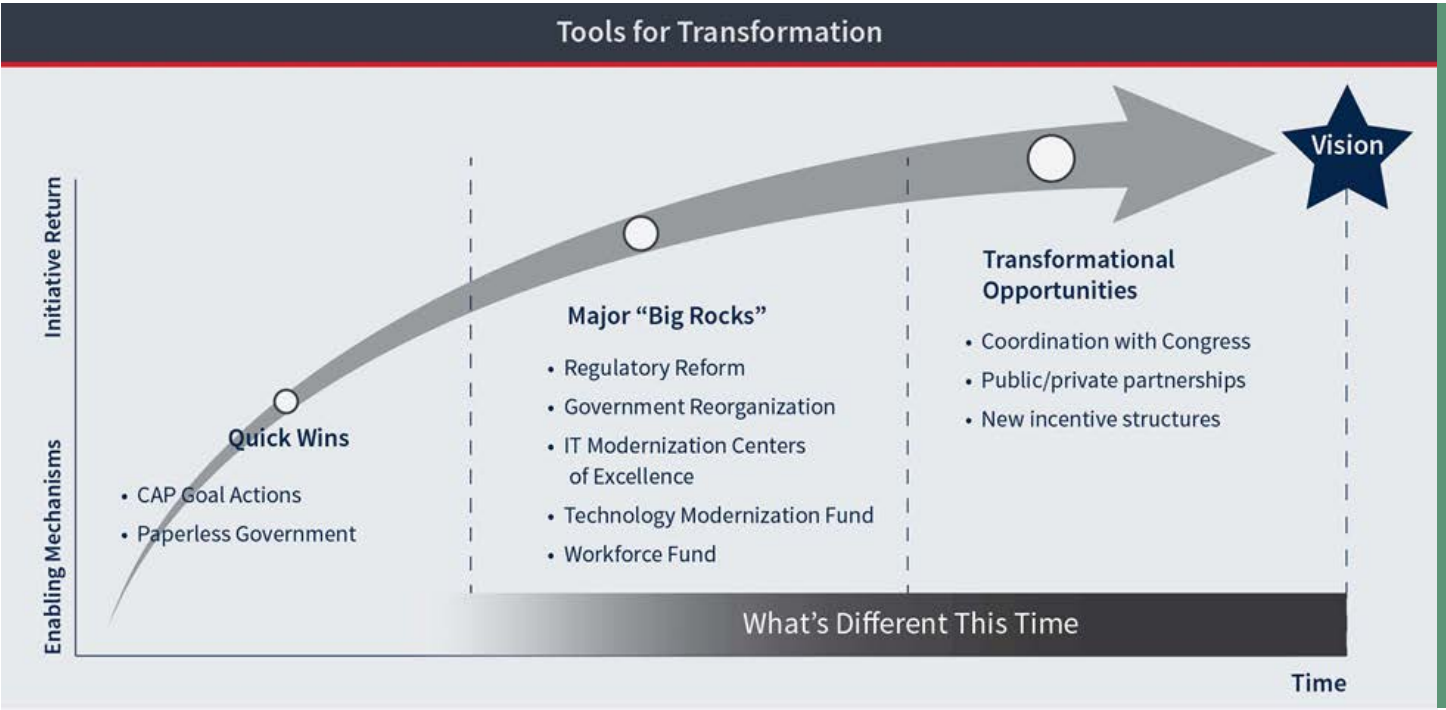
ROI planned actions will support five CAP goal strategies:

- Identify regulatory impediments and administrative improvements in Federal technology transfer policies and practices
- Increase engagement with private sector technology development experts and investors
- Build a more entrepreneurial R&D workforce
- Support innovative tools and services for technology transfer
- Improve understanding of global science and technology trends and benchmarks.

President's Management Agenda

ROI Initiative designed to be responsive to PMA's long-term vision for modernizing the Federal Government for the 21st Century:

- Enable the Federal Government to **adapt to changing needs** over time
- Pursue **deep-seated transformation** rather than short-term fixes



Root cause challenges

- Regulatory Burden
- Structural Issues
- Decision-Making and Processes
- Leadership and Culture
- Capabilities and Competencies