

U.S. – Baltics Multilateral Engagement

Mr. Larry Hencshel
Director, 5G International Interagency
Office of the Under Secretary of Defense
(Research and Engineering)
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International Science and Technology Cooperation in National Security



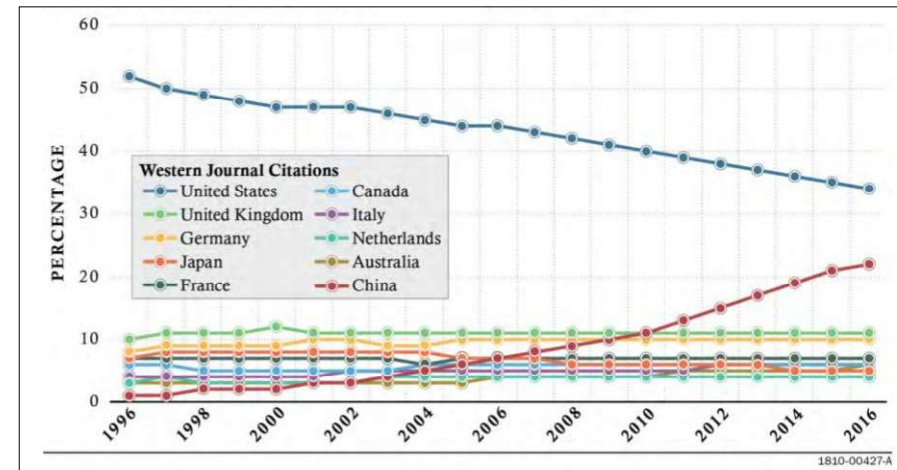
“Most great scientific advances of the world have been the product of free international exchange of ideas. There is hardly a nation that has not made some significant contribution to modern science.... In the free world, we all have a lot to give and a lot to gain in security through the pooling of scientific effort.”

*-- President Eisenhower, Radio and Television Address
to the American People on Science in National Security,
November 7, 1957*



Technology Transforming the Battlespace

- 2019 DNI Worldwide Threat Assessment notes that **“...innovations that drive military and economic competitiveness will increasingly originate outside the United States...”**
- Increased rate of investment in military R&D from near-peers
- Easy **proliferation of knowledge and technology** has eroded U.S. historic advantages
- **Increasingly competitive national security technical environment**
- **Speed and cycle time** become discriminators



“Following decades of investments and efforts by multiple countries that have increased their technological capability, U.S. leadership in emerging technologies is increasingly challenged, primarily by China. We anticipate that with a more level playing field, new technological developments will increasingly emerge from multiple countries and with less warning.”

Office of the Director of National Intelligence, *Annual Threat Assessment of the U.S. Intelligence Community*, 13 April 2021

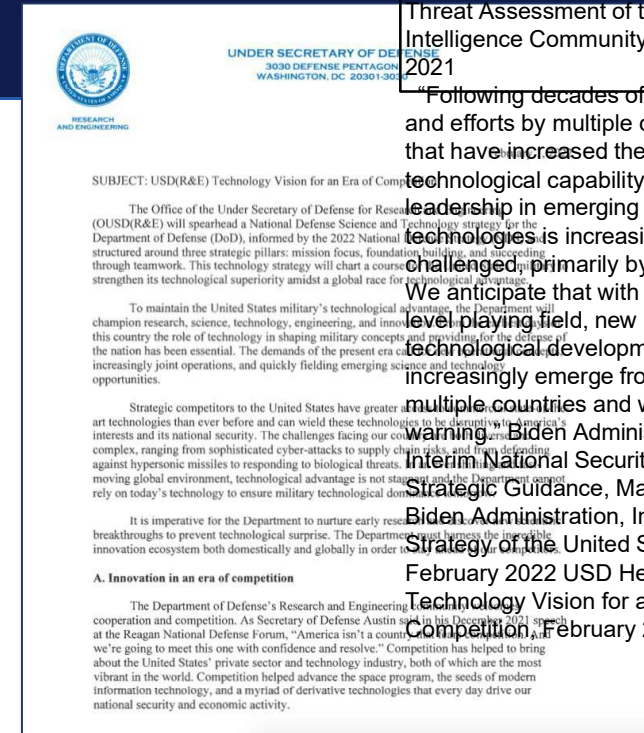
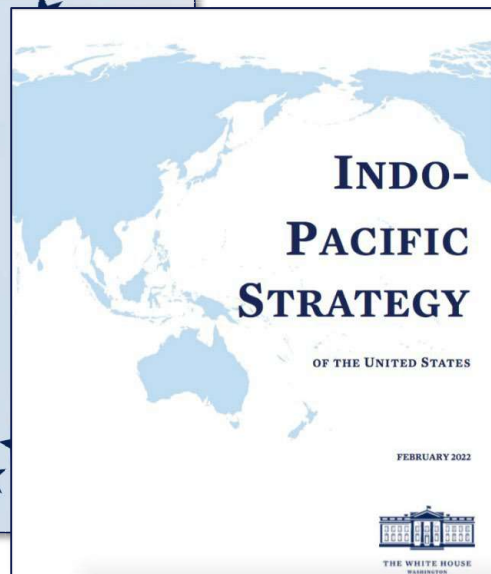
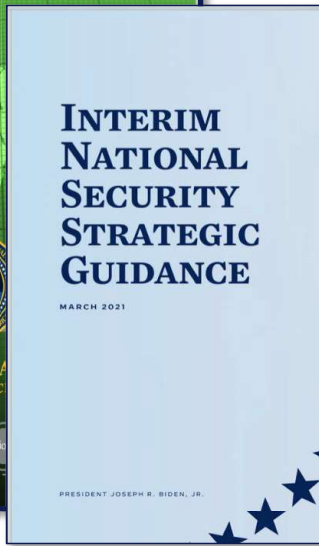
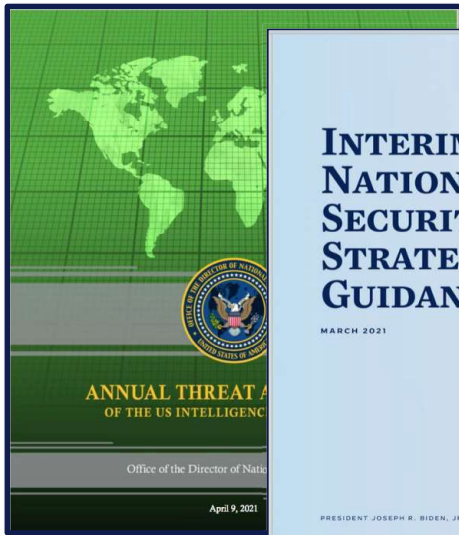


Strategic Imperatives for Defense S&T Cooperation

Presenter Notes
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ATA Document: Office of the Director of National Intelligence, Annual Threat Assessment of the U.S. Intelligence Community, 13 April 2021

“Following decades of investments and efforts by multiple countries that have increased their technological capability, U.S. leadership in emerging technologies is increasingly challenged primarily by China. We anticipate that with a more level playing field, new technological developments will increasingly emerge from multiple countries and with less warning. Biden Administration, Interim National Security Strategic Guidance, March 2021
Biden Administration, Indo-Pacific Strategy of the United States, February 2022
USD Heidi Shyu, Technology Vision for an Era of Competition, February 2022



“To maintain the United States military’s technological advantage, the Department will champion research, science, technology, engineering, and innovation. The demands of the present era call for new operational concepts, increasingly joint operations, and quickly fielding emerging science and technology opportunities.”
HON Heidi Shyu, Under Secretary of Defense for Research and Engineering, February 2022

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OUSD(R&E) Technology Vision in an Era of Competition

Charting a course for strengthening U.S. defense technological superiority amidst a global race for technological advantage

- Pillars:

- **Mission Focus:** Leverage U.S. technology innovation potential to solve DoD's operational, engineering, and mission-focused challenges
- **Foundation Building:** Set foundation to attract/build future technical workforce and infrastructure
- **Succeed Through Teamwork:** Maximize asymmetric advantages by partnering with larger innovation ecosystem, including allies and partners



Critical Technology Areas

- **Seed Areas of Emerging Opportunity**

- Biotechnology
- Quantum Science
- Future Generation Wireless Technology (FutureG)
- Advanced Materials

- **Effective Adoption Areas**

- Trusted Artificial Intelligence and Autonomy
- Integrated Network Systems-of-Systems
- Microelectronics
- Space Technology
- Renewable Energy Generation and Storage
- Advanced Computing and Software
- Human – Machine Interfaces

- **Defense – Specific Areas**

- Directed Energy
- Hypersonics
- Integrated Sensing and Cyber

Focusing efforts and investments in these areas are necessary to maintain U.S. national security and technological superiority



Nurturing Early Research and Conducting Mission Demonstrations with Prototypes

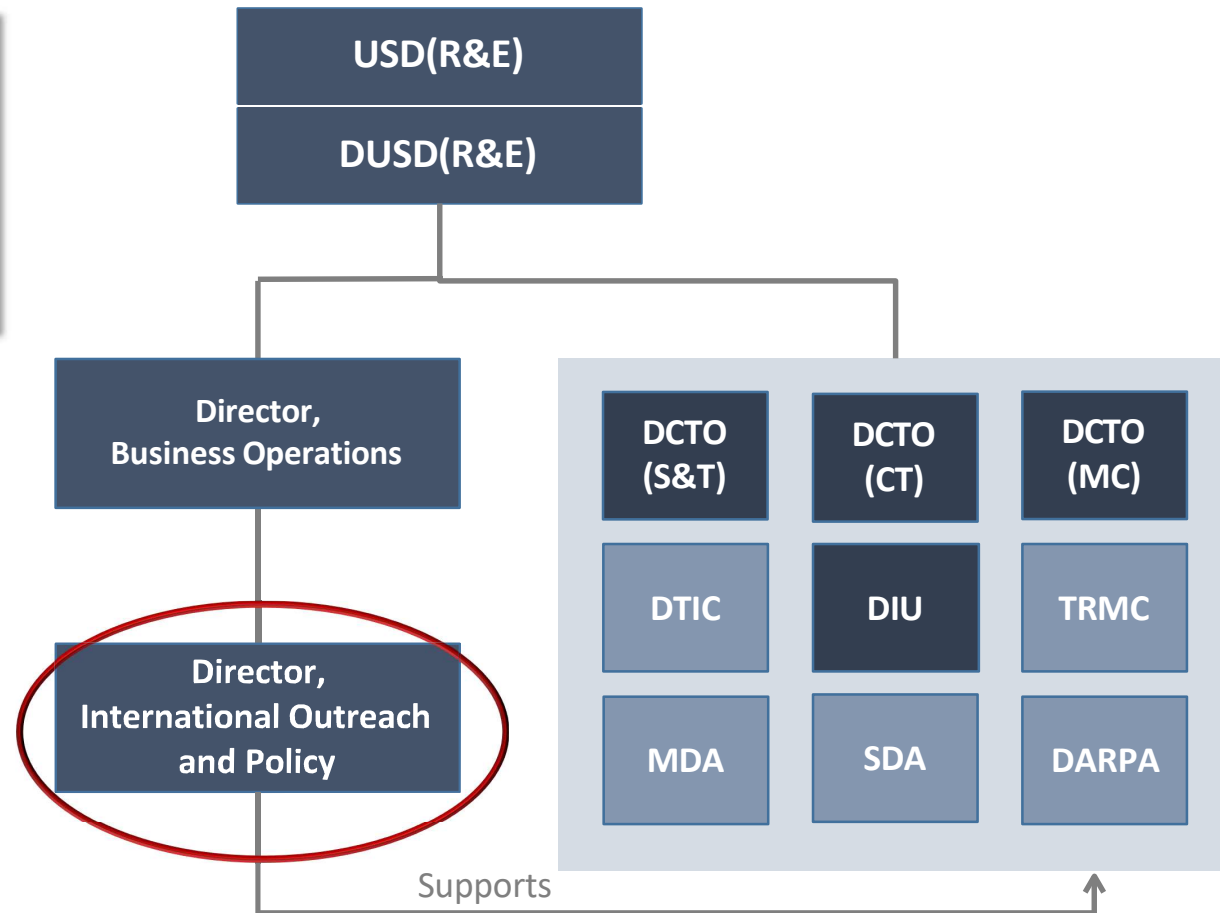
- **Ensuring the United States as “partner of choice” in Basic Research**
 - Encouraging expansion of basic research in emerging scientific powers through OSD- and DoD Component-funded initiatives (e.g., seedlings, academic grants)
 - Maintaining awareness of foreign researcher/institutional sensitivities regarding engaging with the DoD
- **Identifying near term opportunities for demonstrations, joint experimentation, and prototyping**



International Science and Technology Cooperation in OUSD(R&E)

Advises USD(R&E) and supports OUSD(R&E) on defense strategy, policy, and engagement for international matters

- OUSD(R&E) focal point for all international S&T engagement activities
- Provide **subject matter expertise and assist** OUSD(R&E) in pursuing international S&T cooperative activity aligned with DoD Modernization Priorities
- Strive for continuous **business process improvement** and **establish policies** for international S&T cooperation

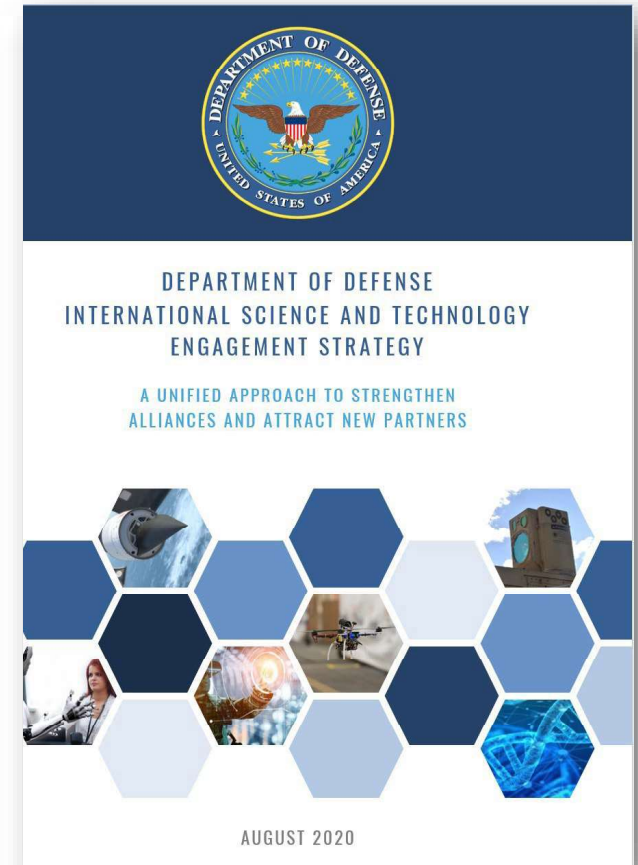


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Implementing the Vision Through Cooperation with our Allies and Partners – DoD International S&T Engagement Strategy

- **Provides strategic level guidance and coordinates** individual U.S. DoD Component engagement activities towards common objectives
- Directs international outreach efforts towards **opportunities with highest return on investment**
- **Seeks new opportunities** with friendly nations that are pursuing **S&T capabilities of interest** to the United States
- **Provides structured approach for creating enhanced awareness, coordination, and strategic planning** of defense international S&T engagements



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Implementing the DoD International S&T Engagement Strategy



- International S&T investments and resources are prioritized according to **U.S. DoD S&T needs, U.S. policies, and foreign S&T strengths and opportunities** – technology protection as well as promotion
- Strive for **measurable outcomes** to accelerate technology development, and ultimately, benefit defense mission and U.S. warfighters
- Ensure collaboration is underpinned by suitable **agreements or arrangements**

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Questions? Thank You!



Dr. Dana J. Johnson

Director, International Outreach and Policy

Office of the Under Secretary of Defense (Research and Engineering)

dana.j.johnson30.civ@mail.mil

Ms. Andrea Heilman

Latvia Desk Officer, IO&P

andrea.heilman.ctr@mail.mil

Mr. Larry Hencshel

Director, 5G International Interagency

Office of the Under Secretary of Defense (Research and Engineering)

larry.s.hencshel.civ@mail.mil