PLENARY 7:
Consideration of Q2 Recommendations

PLENARY MEETING
1230-1600 l Monday, July 20, 2020

PURPOSE
Purpose: The purpose of this virtual public plenary meeting is to deliberate and vote on Q2 2020 recommendations for Congress and the Executive Branch.

ATTENDEES

- Commissioners
- Commission Staff
- Members of the Public
- Media

AGENDA	
1330-1600	**VIRTUAL PLENARY MEETING: OPEN TO THE PUBLIC**
1330-1345	**CALL TO ORDER AND OPENING REMARKS:**
	• DESIGNATED FEDERAL OFFICER, ANGELA PONMAKHA • EXECUTIVE DIRECTOR, YLL BAJRAKTARI • CHAIR, DR. ERIC SCHMIDT • VICE CHAIR, ROBERT O. WORK
1345-1545	**RECOMMENDATIONS REVIEW & DELIBERATION** *THE ORDER OF CONSIDERATION MAY CHANGE*
1345-1405	LOE 3 – TRAIN AND RECRUIT AI TALENT
1405-1425	LOE 4 – PROTECT & BUILD ON U.S. TECH ADVANTAGES AND HARDWARE
1425-1445	LOE 5 – MARSHAL GLOBAL AI COOPERATION
1445-1505	LOE 6 - ETHICS AND RESPONSIBLE AI
1505-1525	LOE 1 – AI RESEARCH & DEVELOPMENT AND SOFTWARE
1525-1545	LOE 2 – APPLY AI TO NATIONAL SECURITY MISSIONS
1545-1600	**PUBLIC COMMENTS, CLOSING REMARKS, & MEETING ADJOURNED**

NATIONAL SECURITY COMMISSION ON ARTIFICIAL INTELLIGENCE

COMMISSIONERS

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SCHMIDT FUTURES

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GILMAN LOUIE
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LOE 4,5,7

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AMAZON WEB SERVICES
LOE 2

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KATHARINA MCFARLAND
NATIONAL ACADEMIES OF SCIENCE BOARD FOR ARMY R&D
LOE 2,7

DR. WILLIAM MARK
SRI
LOE 1,3

DR. KEN FORD
FLORIDA INSTITUTE HUMAN MACHINE COGNITION
LOE 1,2,7

MIGNON CLYBURN
MLC STRATEGIES, LLC
LOE 3,6

DR. STEVE CHIEN
JET PROPULSION LAB
LOE 1,2

DR. JOSE-MARIE GRIFFITHS
DAKOTA STATE UNIVERSITY
LOE 3,6

DR. JASON MATHENY
GEORGETOWN UNIVERSITY
LOE 4,5,6

DR. ERIC HORVITZ
MICROSOFT RESEARCH
LOE 1,6

LINES OF EFFORT

1. **INVEST** IN AI RESEARCH & DEVELOPMENT AND SOFTWARE
2. **APPLY** AI TO NATIONAL SECURITY MISSIONS
3. **TRAIN** AND RECRUIT AI TALENT
4. **PROTECT** & BUILD UPON AI TECH ADVANTAGES AND HARDWARE
5. **MARSHAL** GLOBAL AI COOPERATION
6. **ETHICAL** AND RESPONSIBLE AI
7. **THREAT** ANALYSIS AND RESPONSE ACTIONS

CONGRESSIONAL MANDATE

Section 1051 of the Fiscal Year 2019 National Defense Authorization Act (NDAA) established the National Security Commission on Artificial Intelligence as an independent Commission to "consider the methods and means necessary to advance the development of artificial intelligence, machine learning, and associated technologies by the United States to comprehensively address the national security and defense needs of the United States."

REPORT DEADLINES

- **PRELIMINARY REPORT** JULY 2019
- **INTERIM REPORT** NOVEMBER 2019
- **FINAL REPORT DUE** MARCH 2021

NSCAI SECOND QUARTER RECOMMENDATIONS

35 Recommendations from 6 Lines of Effort
- To be voted on at public Plenary Meeting July 20, 2020
- Will include associated Legislative Language

LOE 1: INVEST

1. Create an AI software repository to support AI R&D.
2. Promote Authorization to Operate (ATO) reciprocity as the default within and among programs, Services, and other DoD agencies to enable sharing of software platforms, components, infrastructure, and data for rapid deployment of new capabilities.
3. Create a DoD-wide AI data catalog to enable data discoverability for AI Research and Development (R&D).
4. Expand Section 219 Laboratory Initiated Research Authority funding to support AI infrastructure and software investments at DoD laboratories.
5. Establish an AI testing framework.
6. Expedite the development of tools to create tailored AI test beds supported by both virtual and blended environments.
7. Create test beds to focus on evaluation of commercially available AI solutions that could serve DoD missions.
8. Support the DoD software and digital technologies budget activity pilot and its expansion to include a Science & Technology (S&T) development effort.
9. Encourage Services to build AI development models that integrate AI experts, domain experts, acquisition experts, and end users.
10. Direct the Services to adopt open innovation models through the Service labs.
11. Create a DoD research and development database.

LOE 2: APPLY

12. As part of the National Defense Strategy, DoD, with support from the Office of the Director of National Intelligence, should produce a classified technology annex that outlines a clear plan for pursuing disruptive technologies and applications that address the operational challenges identified in the National Defense Strategy (NDS).
13. The Tri-Chaired Steering Committee on Emerging Technology NSCAI recommended in March 2020 should steward the implementation of the technology annex described above.
14. DoD should integrate AI-enabled applications into all major Joint and Service exercises and, as appropriate, into other existing exercises, wargames, and table-top exercises.
15. DoD should incentivize experimentation with AI-enabled applications through the Warfighting Lab Innovation Fund, with oversight from the Tri-Chaired Steering Committee.
16. DoD should develop a prioritized list of core administrative functions that can be performed with robotic process automation and AI-enabled analysis and take specific steps to enable implementation.
17. DoD should incentivize deployment of commercial AI applications across the organization for knowledge management, business analytics, and robotic process automation.

LOE 3: TRAIN

18. Create a National Reserve Digital Corps.
19. Expand Scholarship for Service Programs.
20. Create a United States Digital Service Academy.

LOE 4: PROTECT

21. Agencies should endorse and adopt Principles for a Strategic Approach to Technology Protection.
22. Mandate that the Department of Commerce coordinate new rules with existing technical advisory groups that include outside experts.
23. Designate a network of Federally Funded Research and Development Centers (FFRDCs) and University Affiliated Research Centers (UARCs) to serve as a shared technical resource on export controls and help automate review processes.
24. Prioritize hardware controls to protect U.S. national security advantages in AI, and consider future controls surrounding data.
25. Issue an executive order directing the Department of Commerce to finalize identification of emerging and foundational technologies under Export Control Reform Act (ECRA).
26. The United States should work with the Netherlands and Japan to restrict the export of Extreme Ultraviolet Lithography (EUV) and Argon Fluoride Laser (ArF) immersion lithography equipment to China, and take steps to increase demand for such tools among U.S. firms.
27. State, Commerce, and Treasury should work with allies on legal reforms that would authorize them to implement unilateral export controls and enhance investment screening procedures.
28. Grant Treasury the authority to mandate Committee on Foreign Investment in the U.S. (CFIUS) filings for non-controlling investments in AI and other sensitive technologies from China, Russia, and other competitor nations.
29. Expedite Treasury Department CFIUS exemption standards for allies and partners and create fast tracks for exempting trusted investors.

LOE 5: MARSHAL

30. The Secretary of State should establish a senior-level Strategic Innovation and Technology Council within the Department.
31. The Department of State and Congress should expedite efforts to establish the proposed Bureau of Cyberspace Security and Emerging Technology (CSET).
32. The Department of State should enhance its presence in major foreign and U.S. technology hubs and establish a cadre of dedicated technology officers at U.S. embassies and consulates to strengthen diplomatic advocacy, improve technology scouting, and inform policy and foreign assistance choices.
33. The Department of State should incorporate AI-related technology modules into key Foreign Service Institute training courses, including the Ambassadorial Seminar, the Deputy Chiefs of Mission course, Political and Economic Tradecraft courses, and A-100 orientation training classes. FSI should also develop a stand-alone course on emerging technologies and foreign policy.
34. Congress should conduct hearings to assess the Department of State's posture and progress in reorienting to address emerging technology dimensions of great power competition.

LOE 6: ETHICS

35. Heads of departments and agencies implement the Key Considerations as a paradigm for the responsible development and fielding of AI systems.

This includes developing processes and programs aimed at adopting the paradigm's recommended practices, monitoring their implementation, and continually refining them as best practices evolve.

The Key Considerations are broadly applicable across agencies and outlined in the following five categories:

I. Values
II. Engineering Practices
III. System Performance
IV. Human-AI Interaction
V. Accountability and Governance

LOE 1: Investments in AI R&D

LOE AT A GLANCE

Objective:
Identify concrete steps the U.S. can take to maintain global leadership in Artificial Intelligence/Machine Learning research and development, with a focus in research that strengthens U.S. national security and defense.

Commissioners:
- Dr. Andrew Moore, LOE Chair
- Dr. Eric Horvitz
- Dr. Bill Mark
- Dr. Steve Chien
- Dr. Ken Ford
- Dr. Eric Schmidt

Q2 RECOMMENDATIONS

1. **Create an AI software repository to support AI R&D. Judgment 5 & 11**
2. **Promote Authorization to Operate (ATO) reciprocity as the default within and among programs, Services, and other DoD agencies to enable sharing of software platforms, components, infrastructure, and data for rapid deployment of new capabilities. Judgment 5 & 11**
3. **Create a DoD-wide AI data catalog to enable data discoverability for AI R&D. Judgment 5 & 11**
4. **Expand Section 219 Laboratory Initiated Research Authority funding to support AI infrastructure and software investments at DoD laboratories. Judgment 5**
5. **Establish an AI testing framework. Judgment 10**
6. **Expedite the development of tools to create tailored AI test beds supported by both virtual and blended environments. Judgment 10**
7. **Create test beds to focus on evaluation of commercially available AI solutions that could serve DoD missions. Judgment 10**
8. **Support the DoD software and digital technologies budget activity pilot and its expansion to include an S&T development effort. Judgment 5**
9. **Encourage Services to build AI development models that integrate AI experts, domain experts, acquisition experts, and end users. Judgment 5**
10. **Direct the Services to adopt open innovation models through the Service labs. Judgment 5**
11. **Create a DoD research and development database. Judgment 5**

INTERIM REPORT JUDGMENTS

1. Federal R&D funding for AI has not kept pace with the revolutionary potential it holds or with aggressive investments by competitors. Investments that are multiple times greater than current levels are needed.
2. Untapped opportunities exist to build a nationwide AI R&D infrastructure and encourage regional innovation "clusters." Such AI districts for defense would benefit both national security and economic competitiveness.
3. The U.S. government should implement more flexible funding mechanisms to support AI research. Business as usual is insufficient.
4. The U.S. government must identify, prioritize, coordinate, and urgently implement national security-focused AI R&D investments.
5. Bureaucratic and resource constraints are hindering government-affiliated labs and research centers from reaching their full potential in AI R&D.
10. Rapidly fielding AI is an operational necessity. To get there requires investment in resilient, robust, reliable, and secure AI systems.
11. AI is only as good as the infrastructure behind it. Within DoD in particular this infrastructure is severely underdeveloped.

LOE 2: Apply AI for National Security Missions

LOE AT A GLANCE

Objective:
Identify concrete steps that the U.S. can take to maintain its global leadership in AI/ML application for U.S. national security and defense.

Commissioners:
- Safra Catz, LOE Chair
- Katharina McFarland
- Andy Jassy
- Dr. Steve Chien
- Dr. Ken Ford
- Robert O. Work

Q2 RECOMMENDATIONS

1. **As part of the National Defense Strategy, DoD, with support from the Office of the Director of National Intelligence, should produce a classified technology annex that outlines a clear plan for pursuing disruptive technologies and applications that address the operational challenges identified in the National Defense Strategy (NDS). Judgment 6, 7, 8, 9, 10, 11**
2. **The Tri-Chaired Steering Committee on Emerging Technology NSCAI recommended in March 2020 should steward the implementation of the technology annex described above. Judgment 7 & 8**
3. **DoD should integrate AI-enabled applications into all major Joint and Service exercises and, as appropriate, into other existing exercises, wargames, and table-top exercises. Judgment 6, 7, 10, 11**
4. **DoD should incentivize experimentation with AI-enabled applications through the Warfighting Lab Innovation Fund, with oversight from the Tri-Chaired Steering Committee. Judgment 6, 7, 8,10**
5. **DoD should develop a prioritized list of core administrative functions that can be performed with robotic process automation and AI-enabled analysis and take specific steps to enable implementation. Judgment 6, 8, 10, 12**
6. **DoD should incentivize deployment of commercial AI applications across the organization for knowledge management, business analytics, and robotic process automation. Judgment 6, 12**

INTERIM REPORT JUDGMENTS

6. AI can help the U.S. Government execute core national security missions, if we let it.

7. Implementation of the government's national security strategies for AI is threatened by bureaucratic impediments and inertia. Defense and intelligence agencies must urgently accelerate their efforts.

8. Pockets of successful bottom-up innovation exist across DoD and the IC. These isolated programs cannot translate into strategic change without top-down leadership to overcome organizational barriers.

9. AI adoption and deployment requires a different approach to acquisition.

10. Rapidly fielding AI is an operational necessity. To get there requires investment in resilient, robust, reliable, and secure AI systems.

11. AI is only as good as the infrastructure behind it. Within DoD in particular this infrastructure is severely underdeveloped.

12. The U.S. government is not adequately leveraging basic, commercial AI to improve business practices and save taxpayer dollars. Departments and agencies must modernize to become more effective and cost-efficient.

LOE 3: Train & Recruit AI Talent

LOE AT A GLANCE

Objective:
Determine the current status of the AI workforce and recommend concrete steps the United States should take to build and maintain an AI workforce that can address national security and defense needs of the United States.

Commissioners:
- Dr. Jose-Marie Griffiths, LOE Chair
- Mignon Clyburn
- Dr. Bill Mark
- Robert O. Work

Q2 RECOMMENDATIONS

Judgments 15 & 17
1. **Create a National Reserve Digital Corps.**
2. **Expand Scholarship for Service Programs.**

Judgments 17
3. **Create a United States Digital Service Academy.**

[See attached placemats]

INTERIM REPORT JUDGMENTS

13. National security agencies need to rethink the requirements for an AI-ready workforce. That includes extending familiarity with a range of relevant AI technologies throughout organizations, infusing training on the ethical and responsible development and fielding of AI at every level, and spreading the use of modern software tools.

14. DoD and the IC are failing to capitalize on existing technical talent because they do not have effective ways to identify AI-relevant skills already present in their workforce. They should systematically measure and incentivize the development of those skills.

15. The U.S. Government is not fully utilizing civilian hiring authorities to recruit AI talent. Agencies need to make better use of pipelines for people with STEM training.

16. Expanding AI-focused fellowships and exchange opportunities can give officials and service members access to cutting-edge technology, and bring talent from our top AI companies into federal service.

17. The military and national security agencies are struggling to compete for top AI talent. They need a better pitch, incentive structure, and better on-ramps for recent graduates.

18. American colleges and universities cannot meet the demand for undergraduate student interest in AI and computer science generally.

19. The American AI talent pool depends heavily on international students and workers. Our global competitiveness hinges on our ability to attract and retain top minds from around the world

UNITED STATES NATIONAL RESERVE DIGITAL CORPS, *NRDC*
NSCAI Workforce Recommendation

NATIONAL SECURITY COMMISSION ON ARTIFICIAL INTELLIGENCE

NRDC AT A GLANCE

WHY
The government would benefit from access to a larger portion of the country's total digital workforce, as many government digital projects suffer from lack of access to digital expertise. Several AI practitioners within the USG have said during interviews with NSCAI that their projects would benefit from the kind of reserve corps proposed.
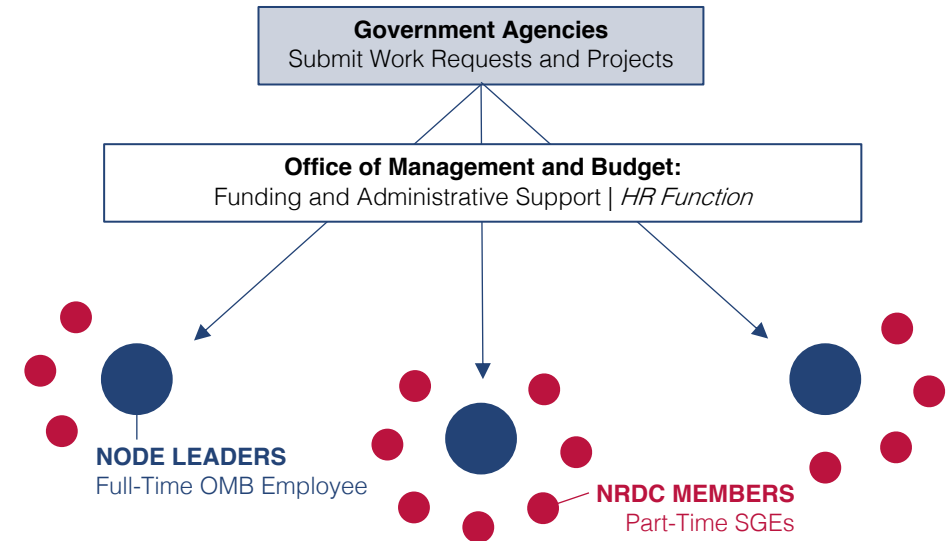
WHO
- Highly-skilled, digital experts from around the country.
- Members of the NRDC would become special government employees (SGEs), and work at least 38 days each year as short-term advisors, instructors, or developers across the government.
- Longer-term positions would be established on an individual basis.

WHAT
- NRDC would fill the current and future gap in regards to AI education for both technologists and non-technical leaders, perform data triage and acquisition, help guide projects and frame technical solutions, build bridges between the public and private sector, and other important tasks.

STRUCTURE

Government Agencies
Submit Work Requests and Projects

Office of Management and Budget:
Funding and Administrative Support | *HR Function*

NODE LEADERS
Full-Time OMB Employee

NRDC MEMBERS
Part-Time SGEs

RECRUITMENT
- Each node recruits and screens its digital experts.
- Volunteers must pass a background check and will not be employees of a foreign government.
- Node Leaders can recruit from within NRDC for specific tasks.

PROJECT SELECTION
- Selection by a node after contact with a government client,
- OMB would direct a node to take on a project, and
- Node leadership would approve individual projects driven by a perceived need that is not tied to a request from a government client.

RELATIONSHIP WITH GOVERNMENT AGENCY
- Project-to-project basis, e.g. consulting for a specific project or teaching a course.
- Members can work across many agencies, not just one.
- Government agencies responsible for paying for their project and reservist time.

RELATIONSHIP WITH CIVILIAN EMPLOYER
- Same rules as the military reserve under the Uniformed Services Employment and Reemployment Rights.
- Members responsible for removing themselves from conflict of interest matters.

INCENTIVES
- NRDC Scholarship modeled after the Reserve Officer Training Corps. Recipients would have a five year commitment.
- NRDC should include a training and continuing education fund, up to $50K per person for continuing AI-related education or student loans.

UNITED STATES DIGITAL SERVICE ACADEMY, *USDSA*
NSCAI Workforce Recommendation

USDSA AT A GLANCE

MISSION STATEMENT

"The United States Digital Service Academy's mission is to develop, educate, train, and inspire digital technology leaders and innovators and to imbue them with the highest ideals of duty, honor, and service to the United States of America in order to prepare them to lead in service to our nation."

WHY

The United States needs a new academy to train future civil servants in digital skills to fill gaps in the current and envisioned digital workforce.

WHAT

- Accredited, degree-granting university that receives government funding
- Independent federal entity within the United States Government
- Helps meet the government's current and future needs for digital expertise in combination with other recruiting mechanisms.
- Advised by an interagency board that would be assisted by a federal advisory committee composed of commercial and academic leaders in emerging technology.

KEY DIFFERENCES BETWEEN USDSA AND THE MILITARY SERVICE ACADEMIES

1. USDSA students would enter the institution to become **civil servants** and their education would be repaid in the form of a five-year obligation to serve in government upon graduation.
2. USDSA curriculum would be **highly technical and STEM-focused**.
3. Graduates from USDSA would serve **across** the United States Government.

IMPLEMENTATION PLAN

PROPOSED EXECUTIVE BRANCH ACTION

The Executive Branch should act on authorization from the Congress to establish a United States Digital Service Academy as an independent agency with a mandate to establish the institution described above.

PROPOSED LEGISLATIVE BRANCH ACTION

Congress should authorize the establishment of the USDSA as an independent agency with a mandate to establish the institution described above. Congress should make a two-year appropriation **of $40 million dollars to pay for initial administrative costs.**

PHASE ONE (YEARS 1-2)

- Identify and secure an appropriate site for USDSA.
- Identify gaps in the government's current and envisioned digital workforce by an interagency task force.
- Establish the USDSA administration as a new Executive Branch agency.
- Recruit faculty from private-sector technology companies.
- Grant the USDSA the authority to accept outside funds and gifts.
- Appropriate $40 million to pay for administrative costs.
- Apply for Accreditation and satisfy necessary requirements for degree-granting approval.
- Appropriate additional costs for future infrastructure.

PHASE TWO (YEARS 3-5)

- Begin classes with an initial class of 500 students at the beginning of year three.
- Demonstrate compliance with all requirements and standards of the regional accrediting organization

PHASE THREE (YEARS 6-7)

- Graduate the first class.
- Ongoing improvement through accreditation assessments.
- Assess, and as appropriate, expand class sizes.

THE STUDENT EXPERIENCE

YEAR 1
- BEGIN CORE-CURRICULUM.
- PRIVATE SECTOR SUMMER INTERNSHIP.

YEAR 2
- PICK A MAJOR.
- BEGIN SECURITY CLEARANCE PROCESS.
- INTERN IN GOV. AGENCY.

YEAR 3
- FOCUS ON MAJOR.
- BEGIN COMMITMENT TO GOVERNMENT AGENCY.
- BEGIN 5YR COMMITMENT.
- PRIVATE SECTOR SUMMER INTERNSHIP.

YEAR 4
- BEGIN JOB PLACEMENT PROCESS AND GET MATCHED TO ASSIGNMENT.
- GRADUATE AS GS-7

MAJORS

A wide variety of technical majors could include AI, software engineering, electrical science and engineering, computer science, molecular biology, computational biology, biological engineering, cybersecurity, data science, mathematics, physics, human-computer interaction, robots, and design.

LOE 4: Protect & Build Upon Tech Advantages and Hardware

LOE AT A GLANCE

Objective:
Determine how the United States can best protect and build upon existing U.S. technology advantages related to AI, including in key associated technologies which enable or are enabled by AI.

Commissioners:
- Gilman Louie, LOE Chair
- Dr. Jason Matheny
- Chris Darby

TECH PROTECTION PRINCIPLES

Principles Informing a Strategic Approach to Technology Protection

- **Principle 1**: Controls Cannot Supplant Investment and Innovation
- **Principle 2**: U.S. Strategies to Promote and Protect Must Be Integrated
- **Principle 3**: Export Controls Must Be Targeted, Strategic, and Coordinated with Allies
- **Principle 4**: Pursue a More Discerning Approach to Export Controls While Broadening. Investment Screening

Q2 RECOMMENDATIONS

I. **Enhancing Capacity to Carry Out Effective Technology Protection Policies – Judgments 20-21**
   1. **Mandate that the Department of Commerce coordinate new rules with existing technical advisory groups that include outside experts.**
   2. **Designate a network of Federally Funded Research and Development Centers (FFRDCs) and University Affiliated Research Centers (UARCs) to serve as a shared technical resource on export controls and help automate review processes.**

II. **Applying Export Controls to AI – Judgments 20-22**
   3. **Prioritize hardware controls to protect U.S. national security advantages in AI, and consider future controls surrounding data.**
   4. **Issue an executive order directing the Department of Commerce to finalize identification of emerging and foundational technologies under Export Control Reform Act (ECRA).**
   5. **The United States should work with the Netherlands and Japan to restrict the export of Extreme Ultraviolet Lithography (EUV) and Argon Fluoride Laser (ArF) immersion lithography equipment to China, and take steps to increase demand for such tools among U.S. firms.**
   6. **State, Commerce, and Treasury should work with allies on legal reforms that would authorize them to implement unilateral export controls and enhance investment screening procedures.**

III. **Focus the Committee on Foreign Investment in the U.S. (CFIUS) on Preventing the Transfer of Technologies that Create National Security Risks – Judgment 21**
   7. **Grant Treasury the authority to mandate CFIUS filings for non-controlling investments in AI and other sensitive technologies from China, Russia, and other competitor nations.**
   8. **Expedite Treasury Department CFIUS exemption standards for allies and partners and create fast tracks for exempting trusted investors.**

INTERIM REPORT JUDGMENTS

20. The U.S. Government should continue to use export controls—including multilateral controls—to protect specific U.S. and allied AI hardware advantages, in particular those in semiconductor manufacturing equipment.

21. Traditional item-based export controls and narrowly-scoped foreign investment reviews are by themselves insufficient to sustain U.S. competitiveness in AI.

22. The U.S. must continue leading in AI-related hardware, and ensure the government has trusted access to the latest technologies.

LOE 5: Marshal Global AI Cooperation

LOE AT A GLANCE

Objective:
Identify opportunities for the United States to marshal global cooperation around AI and emerging technologies to promote common interests and values of like-minded nations and to shape worldwide AI norms and use.

Commissioners:
- Dr. Jason Matheny, LOE Chair
- Gilman Louie
- Chris Darby

Q2 RECOMMENDATIONS

Judgments 24-27

1. **The Secretary of State should establish a senior-level Strategic Innovation and Technology Council within the Department.**
2. **The Department of State and Congress should expedite efforts to establish the proposed Bureau of Cyberspace Security and Emerging Technology (CSET).**
3. **The Department of State should enhance its presence in major foreign and U.S. technology hubs and establish a cadre of dedicated technology officers at U.S. embassies and consulates to strengthen diplomatic advocacy, improve technology scouting, and inform policy and foreign assistance choices.**
4. **The Department of State should incorporate AI-related technology modules into key Foreign Service Institute training courses, including the Ambassadorial Seminar, the Deputy Chiefs of Mission course, Political and Economic Tradecraft courses, and A-100 orientation training classes. FSI should also develop a stand-alone course on emerging technologies and foreign policy.**
5. **Congress should conduct hearings to assess the Department of State's posture and progress in reorienting to address emerging technology dimensions of great power competition.**

INTERIM REPORT JUDGMENTS

24. The United States must enhance its competitiveness in AI by establishing a network of partners dedicated to AI data sharing, R&D coordination, capacity building, and talent exchanges.

25. AI presents significant challenges for military interoperability. If the United States and its allies do not coordinate early and often on AI-enabled capabilities, the effectiveness of our military coalitions will suffer.

26. U.S. diplomacy should be open to possible cooperation with China and Russia on promoting AI safety and managing AI's impact on strategic stability.

27. The United States should lead in establishing a positive agenda for cooperation with all nations on AI advances that promise to benefit humanity.

LOE 6: Ethics and Responsible AI

LOE AT A GLANCE

Objective:
Determine the principal ethical considerations that relate to AI advancement across the national security apparatus and recommend concrete mechanisms to further the responsible development and use of AI for national security and defense needs.

Commissioners:
- Dr. Eric Horvitz, LOE Chair
- Dr. Jason Matheny
- Hon. Mignon Clyburn
- Dr. Jose-Marie Griffiths

Q2 RECOMMENDATIONS

Judgments 1-4
- **Heads of departments and agencies should implement the Key Considerations as a paradigm for the responsible development and fielding of AI systems.**
- **This includes developing processes and programs aimed at adopting the paradigm's recommended practices, monitoring their implementation, and continually refining them as best practices evolve.**

The Key Considerations are broadly applicable across agencies and outlined in the following five categories:

I. **Values**
II. **Engineering Practices**
III. **System Performance**
IV. **Human-AI Interaction**
V. **Accountability and Governance**

INTERIM REPORT JUDGMENTS

- Developing trustworthy AI systems is essential for operational integrity and adoption. It is closely connected to, and depends on, reliability, robustness, auditability, explainability, and fairness.

- From the earliest phase, systems should be designed with ethics in mind.

- Each agency's design and deployment of AI, as with other technologies, must align with America's democratic values and institutional values

- Throughout their life cycles, ethical AI systems for national security will need to preserve individual rights and liberties as protected by law. In international contexts, this includes America's commitments to international humanitarian law and human rights.