Foreign Collaboration Risk Matrices for Federal Agencies

Assessing and managing risks in international partnerships

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Purpose

The purpose of this presentation is to provide some details about the decision matrices developed by U.S. Federal Agencies to comply with the requirements under National Security Presidential Memorandum-33, established to strengthen the U.S. research enterprise against foreign influence and security risks.

Introduction

- **Global engagement is essential** for scientific progress and solving global societal challenges.

- **Risks exist** for individuals and institutions involved in these engagements.

- **Risk identification sources include**:
  - Bipartisan members of Congress
  - FBI
  - National Institutes of Health (NIH)
  - National Science Foundation (NSF)
  - Department of Defense (DoD)
  - Department of Energy (DOE)

- **Key reports and directives highlighting these risks**:
  - JASON report on *Fundamental Research Security and Threats to the U.S. Research Enterprise*
  - Senate Subcommittee on Permanent Investigations' report on *China's Talent Recruitment Plans*
  - *National Security Presidential Memorandum 33 (NSPM-33)*

- **NSPM-33 Purpose: Strengthen U.S. research enterprise against foreign influence and security risks.**

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Overview of Foreign Collaboration Risk Matrices

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Common Risk Factors Across Agencies

Risk Matrices for Oversight

Federal agencies employ risk matrices to evaluate risks in international research and ensure compliance with laws.

Key Risk Factors

Common risks include Foreign Talent Recruitment involvement, undisclosed foreign funding, and foreign affiliations.

Countries of Concern Monitoring

Agencies monitor connections to countries of concern like China, Russia, Iran, and North Korea for security risks.

Intellectual Property and Watchlists

Protection of intellectual property and scrutiny of restricted entities are vital in risk evaluations.

Agency Specific Risk Matrices

- Department of Defense
- Army Research Laboratory
- Department of Energy
- National Institutes of Health
- National Science Foundation
- National Aeronautics and Space Administration

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Department of Defense (DoD)

Risk Assessment Matrix

The 2025 DoD Component Decision Matrix assesses risks in fundamental research proposals to ensure security compliance.

Key Risk Factors

Risk factors include foreign talent recruitment, foreign funding, patent filings, and restricted entity affiliations.

Mitigation and Compliance

Mitigation ranges from prohibitions to mitigation plans, ensuring compliance with national security requirements.

Ongoing Verification and Reporting

Annual participant verification and risk-based reviews reporting to the DoD research office are mandated.

Army Research Risk Assessment Protection Program (ARRP)

Risk Assessment Matrix

The ARRP is an effort to help identify and mitigate potential Conflicts of Commitment/Conflicts of Interest (CoC/CoI) and participation in foreign government-sponsored talent recruitment programs within Army research funding mechanisms, including grants and cooperative agreements.

Key Risk Factors

- Participation by the institution or key personnel conducting the research in foreign talent programs;
- Denied entity list affiliation or association;
- Ongoing CoC or CoI or funding from a strategic competitor;
- Affiliation, association, or collaboration with a foreign institution, person, or entity from a U.S. strategic competitor.

Mitigation and Compliance

Mitigation ranges from prohibitions to mitigation plans, ensuring compliance with national security requirements, including NSPM-33 and NDAA 2019.

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Department of Energy (DOE)

S&T Risk Matrix Overview

DOE uses the Science & Technology Risk Matrix to manage risks in international research collaborations effectively.

Critical Research Areas

Matrix covers six research fields: Quantum Science, High Performance Computing, AI, Battery Science, Bioscience, and Accelerator Technology.

Risk Categorization System

Uses a Red-Yellow-Green system indicating prohibited, restricted, or allowed international engagements in research.

Strategic Collaboration Management

Matrix evolves through DOE-laboratory dialogue, protecting intellectual property and ensuring legal compliance.

National Institutes of Health (NIH)

Decision Matrix Overview

NIH's matrix assesses risks related to foreign interference in biomedical research proposals.

Risk Factors Evaluated

The matrix evaluates risks such as foreign talent recruitment, undisclosed funding, and foreign affiliations.

Commitment to Integrity

NIH ensures transparency and integrity to protect scientific objectivity and national interests.

National Science Foundation (NSF)

TRUST Framework Overview

The TRUST Framework manages risks in foreign research collaborations with emphasis on safeguards and transparency.

Pilot Focus and Risk Factors

Initially piloted with quantum proposals, focusing on risks like undisclosed affiliations and foreign funding.

Balancing Collaboration and Security

NSF balances open scientific collaboration with protecting U.S. research from undue foreign influence.

Framework Expansion

The TRUST Framework is expected to expand to other research areas starting in 2025.

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National Aeronautics and Space Administration (NASA)

Integrated Risk Management

NASA's handbook presents a unified framework for managing risks in international space partnerships effectively.

Focus on Safety and Compliance

The agency emphasizes safety, mission assurance, and adherence to federal regulations in all operations.

Risk Factors and Challenges

Risks include technical vulnerabilities, operational issues, foreign influence, and compliance gaps in collaborations.

Culture of Risk Awareness

NASA promotes leadership and a culture of risk awareness throughout its organization for mission success.

Glossary of Terms

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Key Definitions

Foreign Talent Recruitment Programs

FTRP are initiatives by foreign governments recruiting researchers, often with undisclosed obligations.

Intellectual Property (IP)

IP includes inventions, patents, and copyrights protecting creative and scientific work.

Entity List

The Entity List identifies foreign entities restricted from receiving certain exports or technologies.

Disclosure and Mitigation

Disclosure involves revealing affiliations; Mitigation Plan manages risks in foreign collaborations.

Mitigation Strategies

Summary of Key Mitigation Steps

Full Disclosure Requirement

Agencies require full disclosure of foreign affiliations and funding to ensure transparency in collaborations.

Conflict of Interest Reviews

Conflict of interest reviews identify and manage potential biases in foreign research engagements.

Mitigation Plans for Risks

Mitigation plans are developed for high-risk collaborations to reduce exposure and manage risks effectively.

Training and Monitoring

Training programs educate researchers, and ongoing monitoring ensures compliance with policies.

Agencies Decision Matrices Table

Agency	Risk Factor 1	Risk Factor 2	Risk Factor 3	Risk Factor 4	Co-authorship considered in risk assessment?	How far back?
NIH	Foreign Talent Recruitment Program Participation	Undisclosed foreign funding, particularly from foreign country of concern (FCOC)	Undisclosed affiliations with foreign institutions or entities, particularly with FCOC	N/A	No, if not directly related to NIH-funded work	5 years
NSF (Quantum proposals only)	Active appointments and positions with or research support from US proscribed parties and party to MFTRP	Nondisclosures of appointments, activities, and sources of research support	Potential foreseeable national security applications of the research	N/A	No	Undisclosed information will be examined from January 2022 (NSPM-33 implementation guidance issued)
DoD (including DARPA)	Malign Foreign Talent Recruitment Program participation or co-authorship with participants in MFTRP	Funding from FCOC	Patent applications or patents filed outside the US particularly in FCOC	Affiliation with entities on entity lists	Yes	Some factors considered 10 years prior to October 10, 2019 (Griffin Letter issued)
US Army	Foreign Talent Recruitment Program Participation	Funding from strategic competitors	Affiliation with denied entities	Affiliation, association, or collaboration with strategic competitors	Yes	Not specified
DOE	Ties to Malign Foreign Talent Recruitment Program (MFTRP)	Certain foreign funding sources and concerning behaviors associated with patenting	Ties to entities on specified lists	Critical technology, access to critical infrastructure, and proximity to a military installation	Yes, but not explicitly stated in the policy	Not specified, but likely not earlier than 2019

Source: Vanderbilt University (Adapted with permission)

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Additional Resources

- White House Office of Science and Technology Policy, “Recommended Practices For Strengthening The Security And Integrity Of America’s Science And Technology Research”, January 2021”
- White House Office of Science and Technology Policy, White House: Enhancing The Security And Integrity Of America’s Research Enterprise: October 2020
- American Council on Education (ACE) Memorandum to ACE member Presidents and Chancellors, May 10, 2018
- The Association of American Universities (AAU) and The Association of Public & Land Grant Universities (APLU), “University Actions to Address Concerns about Security Threats and Undue Foreign Government Influence on Campus”, Updated May 2020
- Council on Government Relations (COGR) “Framework For Review of Individual Global Engagements in Academic Research, Version 1.0, January 14, 2020
- Council on Government Relations (COGR) “Federal Focus on Inappropriate Foreign Influence on Research: Practical Considerations in Developing an Institutional Response”, August 18, 2021

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