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ECC  : Export Control Coordinators Organization

Your presentation will begin in
~~three~~
minutes

FUNDAMENTAL RESEARCH EXCLUSION

Panel Members:

Marci Copeland (UC-Irvine), Karla Marie Niemi (LANL), and Gary Hagen (PNNL)



Fundamental Research Exclusion

ECC  : Export Control Coordinators Organization

Objectives

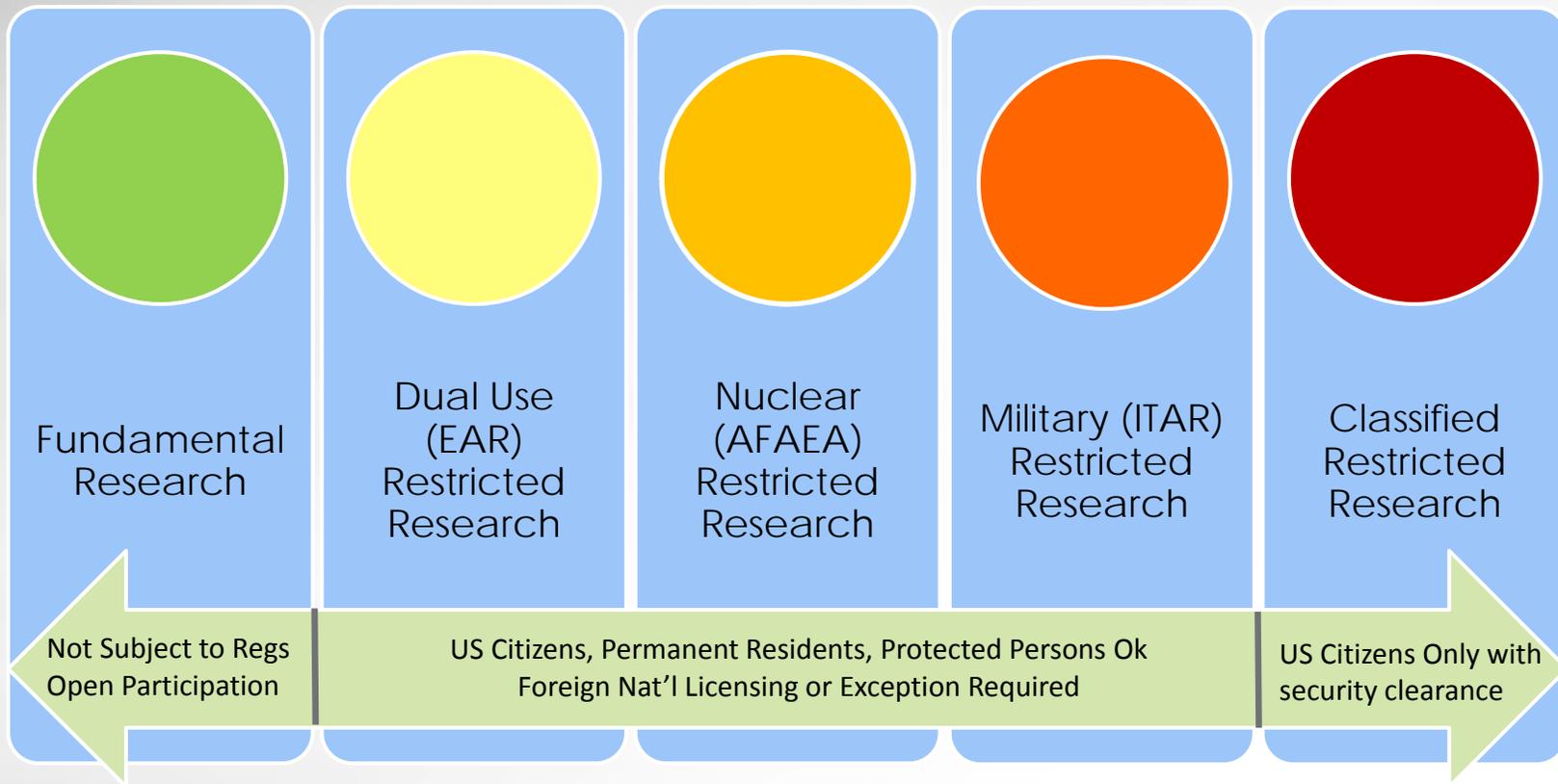


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- ✓ NSDD-189: the FRE begins
- ✓ Overview of how FRE is different depending on the regulatory jurisdiction
- ✓ CRADAs – “temporary delay” of publishing
- ✓ Terminology – defining fundamental research in terms of basic, applied, developmental (Defense funding streams 6.1, 6.2, 6.3)
- ✓ FRE from a University perspective
- ✓ Contract clauses, flow-downs, prime v. sub issues and the FRE

Spectrum of Research & Export Controls



(a short) History of the Fundamental Research Exclusion



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- 1976 Defense Science Board, Task Force issued “Bucy Report”
 - Concluded that the control of export of **knowledge and information** as important as the control of export of **physical items**
- Increasingly broad interpretations about what export controls could regulate
- Scientific meetings and conferences disrupted
- Researchers told if they published they would violate EC’s
- 1982 National Academies panel (with DoD funding) issued “Corson Report”
 - Outlined argument to consider the long-term national security benefit of maintaining unconstrained basic research
- 1985 National Security Decision Directive 189 (NSDD-189) issued
 - Explicitly defined fundamental research



The FRE begins (NSDD-189)



[National Security Decision Directives (NSDDs)]

[stamped:] UNCLASSIFIED

September 21, 1985

NATIONAL POLICY ON THE TRANSFER OF SCIENTIFIC, TECHNICAL AND ENGINEERING INFORMATION

I. PURPOSE

This directive establishes national policy for controlling the flow of science, technology, and engineering information produced in federally-funded fundamental research at colleges, universities, and laboratories. Fundamental research is defined as follows:

"'Fundamental research' means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons."

II. BACKGROUND

The acquisition of advanced technology from the United States by Eastern Bloc nations for the purpose of enhancing their military capabilities poses a significant threat to our national security. Intelligence studies indicate a small but significant target of the Eastern Bloc intelligence gathering effort is science and engineering research performed at universities and federal laboratories. At the same time, our leadership position in science and technology is an essential element in our economic and physical security. The strength of American science requires a research environment conducive to creativity, an environment in which the free exchange of ideas is a vital component.

In 1982, the Department of Defense and National Science Foundation sponsored a National Academy of Sciences study of the need for controls on scientific information. This study was chaired by Dr. Dale Corson, President Emeritus of Cornell University. It concluded that, while there has been a significant transfer of U.S. technology to the Soviet Union, the transfer has occurred through many routes with universities and open scientific communication of fundamental research being a minor contributor. Yet as the emerging government-university-industry partnership in research activities continues to grow, a more significant problem may well develop.

III. POLICY

It is the policy of this Administration that, to the maximum extent possible, the products of fundamental research remain unrestricted. It is also the policy of this Administration that, where the national security requires control, the mechanism for control of information generated during federally-funded fundamental research in science, technology and engineering at colleges, universities and laboratories is classification. Each federal government agency is responsible for: a) determining whether classification is appropriate prior to the award of a research grant, contract, or cooperative agreement and, if so, controlling the research results through standard classification procedures; b) periodically reviewing all research grants, contracts, or cooperative agreements for potential classification. No restrictions may be placed upon the conduct or reporting of federally-funded fundamental research that has not received national security classification, except as provided in applicable U.S. Statutes.

[stamped:] UNCLASSIFIED



[National Security Decision Directives (NSDDs)]

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Export Controls Jurisdictions rest with Various Federal Agencies



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Disclosing technical information to a foreign person in the U.S. is an export?



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May 25, 2016

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CRADAs and the “Temporary Delay” of Publishing

- ▶ What does “Temporary Delay” mean under the FRE exemption?
 - § 734.8 (b)(3) states:
 - (3) Prepublication review by a sponsor of university research solely to ensure that publication would not compromise patent rights does not change the status of fundamental research, so long as the review causes no more than a temporary delay in publication of the research results.
- ▶ Temporary is not a defined regulatory term in EAR Part 772, however . . .
- ▶ Supplement No. 1 to Part 734 (Q&A)
 - Question E(1) provides an example of a **90 day** delay for sponsor review of any research papers that are proposed before they are published
- ▶ Other instances use the word “temporary” with varying applications,
 - A Temporary Denial Order is a maximum of 180 days (§ 766.24)
 - TMP license exception permits temporary exports of 1 year or less (§ 740.9(a)(14))
 - ZTE Temporary General License for 3 months (81 FR 15633 2016-03-24)
 - Temporary export of Personal Protective Equipment , ECCN 1A613.c or d., (§ 740.9(a)(11)) is no more than 4 years

TERMINOLOGY and Defense Funding Streams

- ▶ Defense funding under 6.1 = Basic Research
- ▶ Under 6.2 = Applied Research
- ▶ Under 6.3 = Developmental Research – Once you go beyond proof of principle you are no longer in fundamental research space.

BASIC RESEARCH Definition



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BASIC RESEARCH is defined as systematic study directed toward fuller knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind. Basic research, however, may include activities with broad applications in mind.

OMB Circular No. A-11

APPLIED RESEARCH Definition



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APPLIED RESEARCH is defined as systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met.

OMB Circular No. A-11

DEVELOPMENT Definition



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DEVELOPMENT is defined as systematic application of knowledge or understanding, directed toward the production of useful materials, devices, systems or methods, including design, development, and improvement of prototypes and new processes to meet specific requirements.

OMB Circular No. A-11

The University Context



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UC's Mission

"The distinctive mission of the University is to serve society as a center of higher learning, providing long-term societal benefits through transmitting advanced knowledge, discovering new knowledge, and functioning as an active working repository of organized knowledge. That obligation, more specifically, includes undergraduate education, graduate and professional education, research, and other kinds of public service, which are shaped and bounded by the central pervasive mission of discovering and advancing knowledge."

— *Mission statement from the University of California Academic Plan, 1974-1978*

The University's fundamental missions are teaching, research and public service.



FRE from a University Perspective

As a general rule....

- ▶ University activity is not subject to export controls
- ▶ The challenge lies in catching what is, or what could be

Why isn't most university activity regulated?

- ▶ Legal limitations on what the federal agencies have authority to regulate
- ▶ Based in constitutional protections for scientific communication
- ▶ Universities historically have focused on teaching, educating, and disseminating knowledge
 - Including in research-based activities like fundamental research
- ▶ The regulations recognize this through a series of exclusions and exemptions from regulation

FRE from a University Perspective

University research will **not** be Fundamental Research if:

- ▶ The University or its researchers accept restrictions on publication of scientific and technical information resulting from the project or activity, or
- ▶ The research is funded by the U.S. government and specific access and dissemination controls protecting information resulting from the research are applicable.
- ▶ See handout

Urban Legends



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- ▶ Fundamental research is never export controlled
- ▶ Export Controls only applies to shipments
- ▶ Fundamental research is defined as something that has never been done before, and does not have to do with the phase of the research
- ▶ Development of products may fall under fundamental research

No publication restrictions ≠ No export concerns



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- Fundamental Research does not apply to sponsor's or third-party, export-controlled, or proprietary information.
- Fundamental Research applies only to fundamental research information, not to physical items or services such as training.
- Fundamental Research does not apply to development information.

Examples of Export Control Risk for University Activities

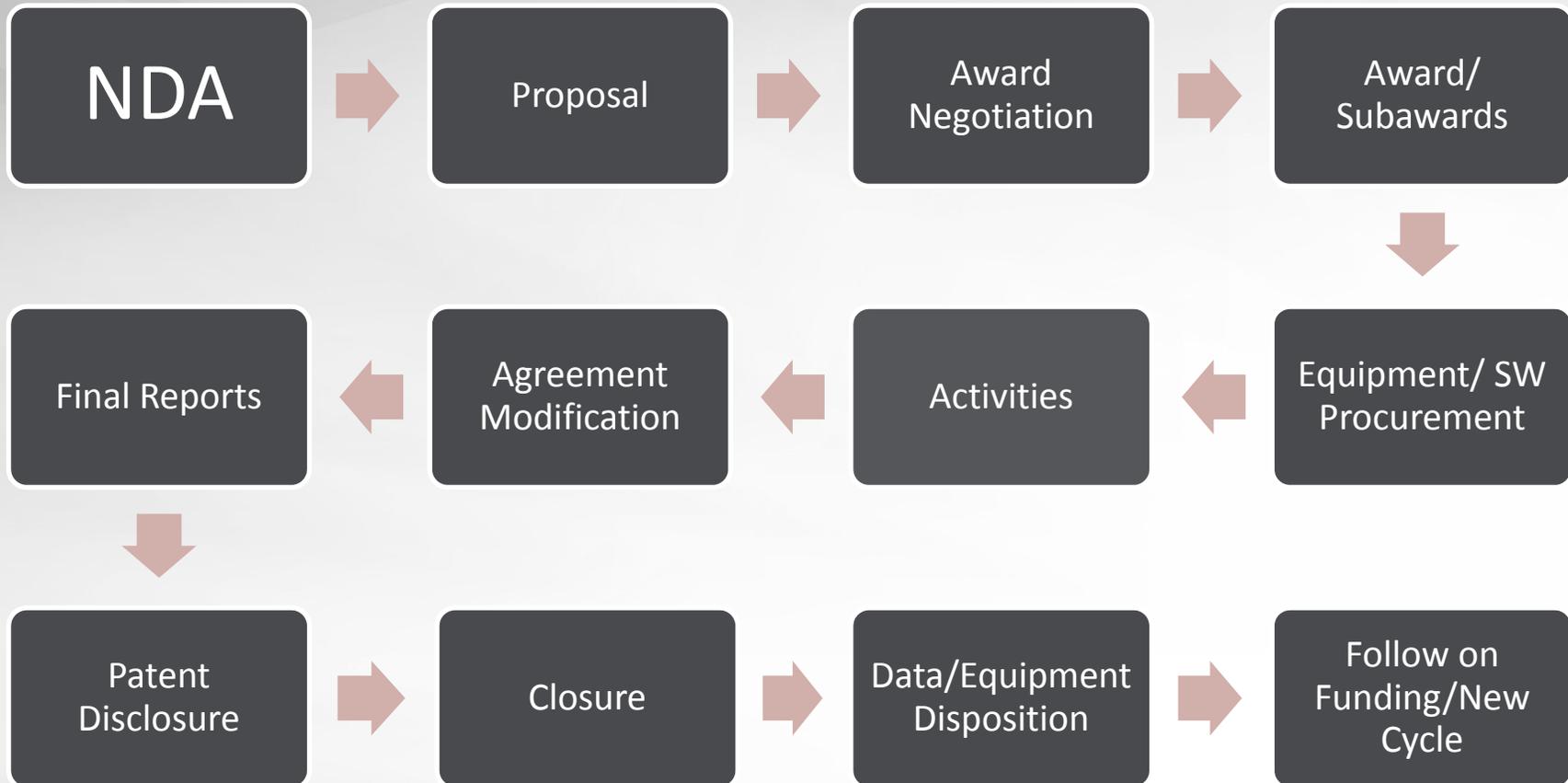


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1. Nondisclosure Agreements (NDAs)
2. Services Agreements
3. Sponsored research agreements
4. International collaborations
5. Equipment and materials purchase and surplus (particularly defense articles)
6. Equipment usage
7. Material Transfer Agreements (MTAs)
8. Software licenses
9. Payments to foreign nationals
10. Fund transfers to foreign countries
11. Equipment shipments to foreign countries for loan or field work
12. Information transfers to foreign countries
13. Foreign Travel
14. Foreign student admissions

Agreements Lifecycle- Export Considerations

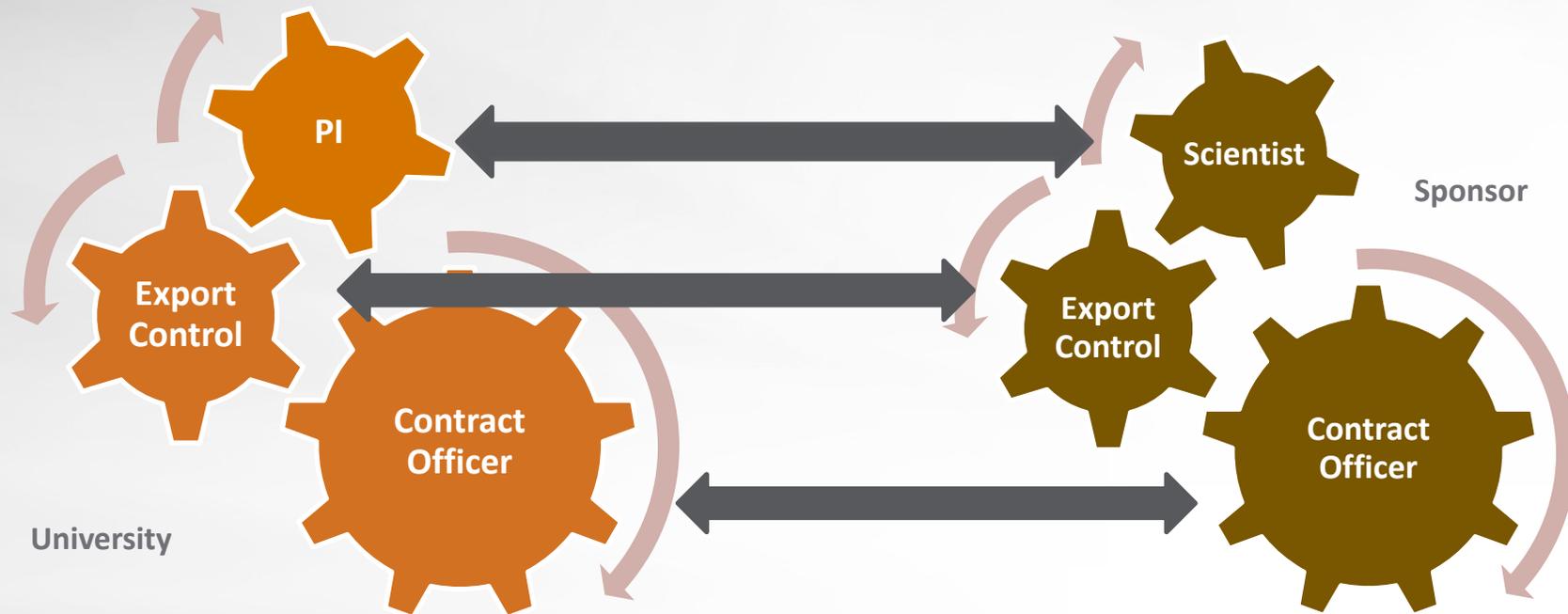


Agreement Negotiation



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BAA - Topic Subject to the ITAR



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SITIS Topic Details

Topic List

Proposals Accepted:

Program: STTR

Topic Number: MDA13-T005 (MDA)

Title: Command and Control, Modeling and Simulation, Training

Research & Technical Areas: Information Systems, Battlespace, Human Systems

Acquisition Program: MDA/BCDC

The technology within this topic is restricted under the International Traffic in Arms Regulation (ITAR), which controls the export and import of defense-related material and services. Offerors must disclose any proposed use of foreign nationals, their country of origin, and what tasks each would accomplish in the statement of work in accordance with section 3.4 of the solicitation.

BAA Intended as Fundamental Research



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As of the date of publication of this BAA, the Government expects that program goals as described herein may be met by proposers intending to perform fundamental research. The Government does not anticipate applying publication restrictions of any kind to individual awards for fundamental research that may result from this BAA. Notwithstanding this statement of expectation, the Government is not prohibited from considering and selecting research proposals that, while perhaps not qualifying as fundamental research under the foregoing definition, still meet the BAA criteria for submissions. If proposals are selected for award that offer other than a fundamental research solution, the Government will either work with the proposer to modify the proposed statement of work to bring the research back into line with fundamental research or else the proposer will agree to restrictions in order to receive an award.

Proposers should indicate in their proposal whether they believe the scope of the research included in their proposal is fundamental or not. While proposers should clearly explain the intended results of their research, the Government shall have sole discretion to select award instrument type and to negotiate all instrument terms and conditions with selectees. Appropriate clauses will be included in resultant awards for non-fundamental research to prescribe publication requirements and other restrictions, as appropriate.

252.204-7000 (abridged)



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(a) The Contractor shall not release to anyone outside the Contractor's organization any unclassified information, regardless of medium unless:

- 1) The Contracting Officer has given prior written approval;
- 2) The information is otherwise in the public domain before the date of release; or
- 3) The information results from or arises during the performance of a project that has been **scoped and negotiated** by the contracting activity with the contractor and research performer and **determined in writing by the contracting officer** to be fundamental research in accordance with NSDD189... and the USD memoranda on Fundamental Research, dated May 24, 2010, and on Contracted Fundamental Research, dated June 26, 2008....

Contract clauses, flow-downs...



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- ▶ Fundamental research under ITAR at a university vs at the lab

Ex-UT professor J. Reece Roth Reported to federal prison (Jan 18, 2012)



- Allowed two foreign graduate students onto an unclassified U.S. Air Force drone project

"This sentence communicates the importance of export compliance to academia and industry, especially in the research and development communities," U.S. Attorney Bill Killian said.

Questions?



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