Export Controls, Academia and Research: the Twain Shall Meet

Bureau of Industry and Security (BIS)
U.S. Department of Commerce

Have you heard this before?

"I sent a sample and it's stuck in Customs! Can you help me?"

"Steve, I saw that you hosted a dinner at the lab and gave a tour. You did not check with me on the guests."

"WHAT'S A DEEMED EXPORT?"

"I have a new professor coming next week. Do I to get him a visa?"

"That international student is a whiz kid – can she work in my lab?"

"I didn't know I needed to check with you before I collaborated with a scientist overseas."

"Am I allowed to asked his/her nationality?"

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Challenges of Implementing a Compliance Program in the University Setting

- Senior Management Commitment
- Assessing Risks and Getting Sufficient Access to Projects
- Centralizing all shipping authorizations
- Educating University Professors, Staff and Students
- Communication among and across all departments with University Research Administrators and Compliance Officers

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What is being Targeted?

- Biotechnology and pharmaceuticals
- Nanotechnology
- Quantum computing
- Advanced materials
- Submersible vehicles
- Acoustic communications and sensors
- Communications and encryption technology
- Satellites, spacecraft and related items
- Weapons systems yet unclassified

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Methods Used to Target Technology

- Hacking/computer intrusions
- Unsolicited e-mail/telephone requests
- Compromise of laptop/phone while traveling overseas
- Surveillance of U.S. travelers while abroad
- Visits by scientific, research, & governmental delegations
- Attending/hosting conferences/trade shows
- Relocating R&D facilities overseas
- Downloading information from your network
- National laboratories
- Liaison with universities that have ties to defense contractors
- Front companies

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Examples of Dual-Use Items

Use of Concern   **Legitimate Use**

Gas centrifuge, Fabrication of WMD ← Machine Tools → Machine Parts and Components

Missile Components ← Carbon Fibers → Golf club shafts, Fishing rods

Mustard Gas ← Thiodiglycol → Plastics, Dyes, Inks

Stabilization of biological agents for biological weapons ← Freeze-Drying Equipment → Instant Coffee

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University Case Studies: The Classics

Texas Tech 2003

- Dr. Thomas Butler exported virals of Yersinia pestis to Tanzania without a license
- ECCN 1C351
- Dr. Butler 2 years in prison, $37,400 civil penalty, export privileges denied for 10 years

UMASS Lowell 2007

- Exported items subject to EAR to SUPARCO in India without license.
- SUPARCO on Entity List
- EAR99 items
- $100,000 civil penalty, suspended
- 2 year probationary period

Tennessee 2012

- Professor J. Reece Roth released technical data subject to the ITAR to foreign nationals from China and Iran
- Technical data restricted by US Air Force contract
- 48 months in prison, 2 year supervised release

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University Case Studies: New

- Professor Yi-Chi Shih
- Adjunct Professor at the University of California, Los Angeles (UCLA)

- Conspired to export sensitive semiconductor chips with military applications to China
- June 26, 2019 found guilty for exporting stolen U.S. military technology to China
- Also found guilty of mail fraud, wire fraud, subscribing to a false tax return, making false statements to a government agency and conspiracy to gain unauthorized access to a protected computer to obtain information
- Sentenced to 40 months in prison

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Is it subject to the EAR?

Supplement No. 2 to Part 732
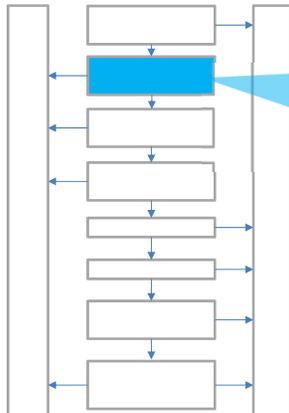
Is the technology or software I am planning to export or reexport publicly available (excluding encryption items)? See Section 734.3(b)(3)

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Items Subject to the EAR

§734.3 Items subject to the EAR

- (b) The following are _**not**_ subject to the EAR
  - (3**) Information** and "software" that:
    - (i) Are **published**, as described in §734.7;
    - (ii) **Arise during, or result from, _fundamental research_, as described in §734.8;**
    - (iii) Are **released by instruction in a catalog course or associated teaching laboratory of an academic institution**;

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Do you need an export license?
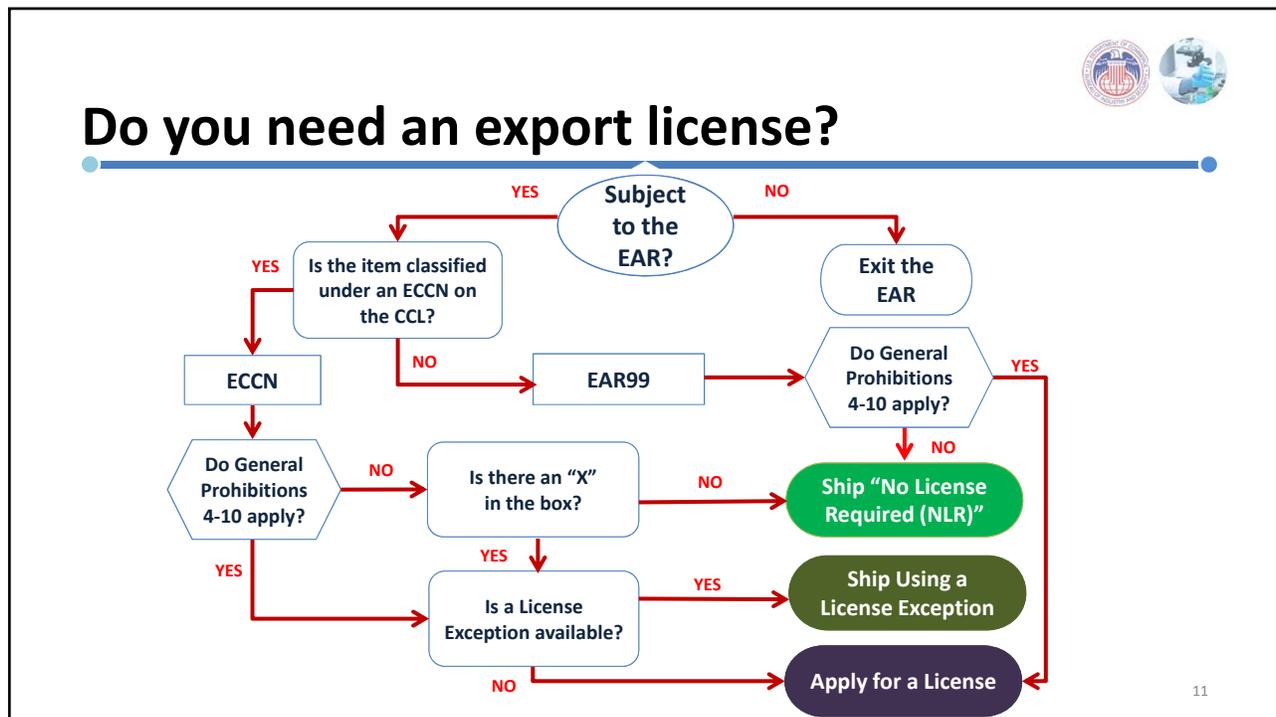
Definitions: Fundamental Research

§734.8 (a) Fundamental research. "Technology" or "software" that arises during, or results from, fundamental research **_and_** is intended to be published is not subject to the EAR. (Please note: Section 734.8 does not apply to physical objects such as pathogens or equipment.)

734.8(c) *Fundamental research definition. Fundamental research* means research in science, engineering, or mathematics, the results of which ordinarily are **published** and **shared** broadly within the research community, and for which the researchers have **not accepted restrictions** for proprietary or national security reasons.
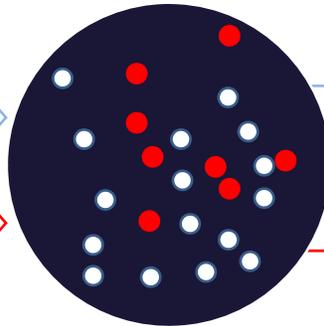
Definitions: Fundamental Research

Universe of Technology

Input

Publicly available technology
(**Not** Subject to the EAR)

Preexisting Export Controlled Technologies
(**Subject to the EAR**)

Output

Results of research published
(e.g. Fundamental Research)
(**Not** Subject to the EAR)

Results of research withheld from publication
(**Subject to the EAR**)

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Definitions: Deemed Export

- Releasing or otherwise transferring "technology" or source code (not object code) to a foreign person in the United States (a "deemed export") (EAR 734.13(a)(2))
- Any release in the United States of "technology" or source code to a foreign person is a deemed export to the foreign person's most recent country of citizenship or permanent residency (EAR 734.13(b))

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Definitions: Technology

Information necessary for the "development," "production," "use," operation, installation, maintenance, repair, overhaul, or refurbishing (or other terms specified in ECCNs on the CCL that control "technology") of an item

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Definitions: Release (§734.15)

(a) Except as set forth in § 734.18, "technology" and "software" are "released" through:

(1) Visual or other inspection by a foreign person of items that reveals "technology" or source code subject to the EAR to a foreign person; or

(2) Oral or written exchanges with a foreign person of "technology" or source code in the United States or abroad.

(b) Any act causing the "release" of "technology" or "software," through use of "access information" or otherwise, to yourself or another person requires an authorization to the same extent an authorization would be required to export or reexport such "technology" or "software" to that person.

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Resources from www.bis.doc.gov

Export Portal

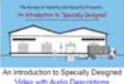FAQs

Encryption FAQs
Cuba FAQs
Hong Kong FAQs
EAR Definitions, Technology and Software,
Fundamental Research, and Patents FAQs
BIS 232 FAQs
SNAP-R FAQs
Huawei Entity Listing FAQs
Huawei Entity Listing Temporary General License
Extension FAQs

Training videos (8 Total)

SNAP-R
SNAP-R How to Setup an Account
Video with Audio Descriptions

SNAP-R
SNAP-R Classification Requests
Video with Audio Descriptions

An Introduction to Specially Designed
Video with Audio Descriptions

Deemed Exports
Video with Audio Descriptions

Previous presentations

Bureau of Industry and Security

BIS 2019 | ANNUAL CONFERENCE
ON EXPORT CONTROLS
July 9-11 | Washington, D.C.

Emerging Technologies, Strategic Trade, and Global Threats
Presentations

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Suggested Best Practices for Universities

- Software to audit email
- Implementing Technology Control Plans (TCPs) for specific university programs
- Implementing an overall Export Compliance Program (ECP) including the elements recommended by BIS
- Network: University specific and other general export related associations

U.S. Department of Commerce
Bureau of Industry and Security

Export Compliance Guidelines

The Elements of an Effective
Export Compliance Program

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Elements of a Technology Control Plan (TCP)

- A TCP should contain the following essential elements:
  - Management commitment to export compliance
  - Physical security plan
  - Information security plan
  - Personnel screening procedures
  - Training and awareness program
  - Self-evaluation program

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Elements of an Effective
Export Compliance Program (ECP)

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University Export Compliance - Tips

- Make export control compliance <u>relevant</u> across university departments
- Break down your overall export compliance program
  - Create sub-sections for different university units
  - Supply each with a shorter list of critical activities relevant to them
- This should help staff understand, and comply with, the core actions that specifically impact them

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Questions?

Thank you for joining us!

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