

Export Control and Academia

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Export Control and Academia

- | | |
|--|------------|
| 1. Export control and its meaning for science | page 2,3,4 |
| 2. The main legal basis | page 5 |
| 3. Activities relevant to foreign trade law | page 6,7 |
| 4. Control of „Goods“ | page 8 |
| 5. Examples with potential for abuse | page 9 |
| 6. The four Screenings | page 10 |
| 7. Exceptions | page 11 |
| 8. A check schema | page 12 |
| 9. The written Internal Compliance Program (ICP) | page 13 |
| 10. Extraterritoriality of U.S. Export Control Law | page 14 |



What is export control?

Universities engage in foreign trade by

- supplying knowledge, research results, data, products, scientific equipment and new technologies abroad or
- exchanging and cooperating internationally through their scientists.

2

If these are security-relevant matters, i.e. if they are dual-use relevant, then export control law applies.

Something is dual-use relevant or is a dual-use good if it is developed or used for civilian purposes but there is also the potential for military or terrorist use.

Export = to a third country

Transfer = within the EU



Export control and its meaning for science

- In principle, foreign trade law also affects science, research and teaching.
- Science, research and teaching enjoy the freedom of science enshrined in Article 5 (3) of the German Basic Law and are not, however, exempt from the duty of approval under foreign trade law.
- Even a civilian orientation of the research areas does not exclude export control. The only decisive factor is the objective potential for misuse.



Export control: A common task!

- Compliance with foreign trade law is not only a matter of compliance with the law, but also of ethical self-responsibility by the researchers as well as the university.
(Senate Commission for Responsibility in Science)
- Observance of foreign trade law is indispensable for the reputation and international competitiveness of a university.
- Cutting-edge research and thus "excellence" is also characterized by compliance with legal requirements and ethically responsible conduct.



The main legal basis

to protect (security) against nuclear, chemical or biological weapons, internal repression, human rights abuses and terrorism

National: **Foreign Trade and Payments Act** (Außenwirtschaftsgesetz AWG)

Foreign Trade and Payments Ordinance
(Außenwirtschaftsverordnung AWW) (export lists*)

International: **EU-Dual-Use Regulation** (list of goods*)

Embargo Regulations/Resolutions of the United Nations
Security Council and the EU against countries/people**

The customs authorities carry out foreign trade audits. Violations may result in

- criminal, misdemeanor or civil liability actions
- Loss of reliability according to the Foreign Trade Law

*Work aid: common, non-binding index

**FiSaLis2024 financial sanctions list against people/groups



Universities: Activities relevant to foreign trade law

- **Export or transfer of listed goods**
Delivery or transfer of (e.g.) test samples, prototypes, equipment
- **International research cooperations**
- **Technology transfer** (export of specific technical knowledge)
 - Informal cross-border exchange between researchers
 - Placement of information in electronic databases, which can also be accessed from abroad
 - Scientific publications that are also available to persons from third countries
 - Scientific presentations at congresses, seminars etc.
 - Cooperation with visiting scientists from third countries at the institute
- **Technical Support**
 - In connection with repair, development, production, assembly, testing, maintenance
 - In the form of instruction, training, consulting services or transfer of practical knowledge/skills



Areas at universities affected by export controls

**Business
Trips**

**Human
Resources**

**Guest
Scientists**

**Goods
Shipment**

**Cloud
Utilization**

**International
Cooperations**

Lectures

Publications

PhD Students

**International
Projekts**

**Sensible
Dual-Use-
Projekts**

**Goods of
U.S. origin**



Control of goods (products, software, technology) etc.

- **Military equipment** is subject to comprehensive control.
- **Listed dual-use goods** that can be used for civilian or military purposes are subject to control if they are explicitly mentioned in lists of goods.
- **Non-listed dual-use goods** are subject to control depending on their use (so-called "catch-all" rule).
- **Different goods** are subject to control on the basis of embargo decisions by international bodies.
- In addition to the control of goods, there are embargoes with extensive **lists of names of natural and legal people** and
- **Financial sanctions** lists in capital and payment transactions to be observed.



Examples with potential for abuse

- "Khan Network": Knowledge and technology gained at European universities made A.Q. Khan the father of the Pakistani atomic bomb
- Frequency converter: Speed control of electric drives, but also an essential component of gas ultracentrifuges, which are used for uranium enrichment
- Software for image recognition or autonomous flight control as an application for drones
- Development of a new cultivation method for certain viruses
- Research on interrogation methods or linguistic/psychological influence
- Guests with the nationality of an embargoed country
- Boron (boron-10 (^{10}B)-isotope) or materials contaminated with boron



Four Screenings for the testing of the existence of a licensing requirement:

Which goods?	Goods-based screening
For what purpose?	(End)Use-based screening
Where to?	Country-based screening
To whom?	Person-based screening

10

Only if the questions result in "critical hits" in connection with foreign characteristics according to foreign trade law, a prior authorization of the "export" is required at the German Federal Office for Economic Affairs and Export Control.



Exceptions

Controlled is technology that is essential (indispensable) for the development, production or use.

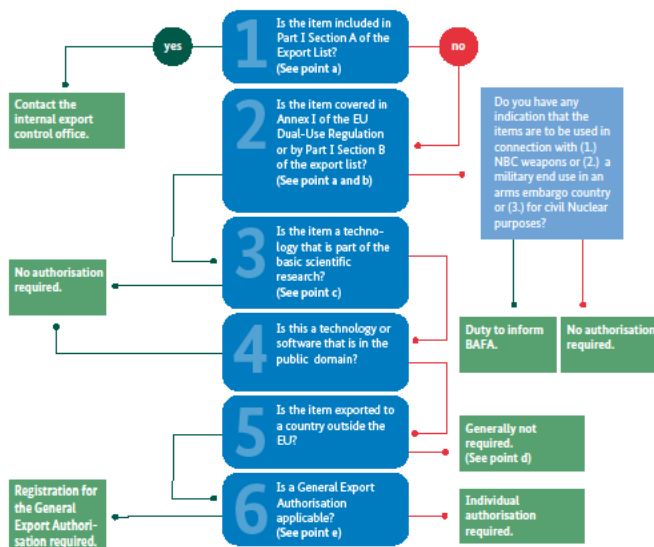
For nuclear technology, "related" is sufficient.

- **Basic scientific research**
(Technology Readiness Level 1-3)
(vs. applied research TRL >3 or industrial third party funding)
- **Knowledge already in the public domain**
- Information for **patent applications** (exception: nuclear technology)
- **General approvals:** 8 european, 21 national
(e.g. AGG EU001 for certain third countries)

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Non-binding guidance for the examination of authorisation requirements



a) The Export List can be found in Annex 1 to the Foreign Trade and Payments Ordinance, Außenwirtschaftsgesetz, AWV: www.gesetze-im-internet.de/awv_2013/anlage_1.html

b) The current Annex I of Regulation (EU) 2021/821 (EU Dual-Use Regulation) can be found at: <http://data.europa.eu/eli/reg/2021/821/2022-05-05>

c) Basic scientific research is understood to mean experimental or theoretical work mainly to obtain new information on fundamental principles of phenomena or facts, which are not primarily directed towards a specific practical aim or purpose.

d) A list of items that are also subject to authorisation for delivery within the EU can be found in Annex IV of the EU Dual-Use Regulation. The current version is available at: <http://data.europa.eu/eli/reg/2021/821/2022-05-05>

e) A list of applicable General Authorisations and a help tool (General Authorisation Finder) can be found at: http://www.bafa.de/DE/Aussenwirtschaft/Ausfuhrkontrolle/Antragsarten/Allgemeine_Genehmigungen/allgemeine_genehmigungen_node.html

This guidance is based on a flowchart of the "Guidelines for researchers on dual use and misuse of research", which were developed by five Flemish universities with the participation of imec and the Flanders Institute of Biotechnology.



Internal Compliance Program (ICP) for export control

- ▶ **written working and organizational instructions for export control**
(no legal requirement, but official expectation)

The ICP regulates the procedures and measures required as part of due diligence to assess risks and minimize potential for misuse in connection with the export of sensitive goods, technologies, software, or technical support to end users or for end uses.

13

- Organizational / personel / technical means
- Organizational structure / distribution of responsibilities
- Audit / monitoring mechanisms
- Workflow organization / processes
- Records / safekeeping



Extraterritoriality of U.S. Export Control Law

- Primarily regulates the export of goods from the U.S.
- But also is applied extraterritorially, i.e. (re)exports outside the U.S.
 - Export of goods with **U.S. origin**
 - Export of foreign goods with **U.S. content** („de minimis rules“)
 - Export of foreign goods based on **U.S. technology**
- Applies to any **U.S. person** involved in a third country transaction
- **U.S. person sanction lists**
- **Country of destination**



**Please pay attention to indications for export-critical facts,
the so-called red flags!**

I will support you:

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<https://www.uni-heidelberg.de/en/institutions/university-administration/division-1-law-and-committees/export-control>