Federal Office
for Economic Affairs
and Export Control

# Export Control and Academia Manual

# Imprint

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# Export Control and Academia

# **Manual**

# Contents

# Glossary

The following definitions are not binding. Only the statutory provisions are binding.

| Term | Definition / Explanation |
|---|---|
| **A0011** | Example for the numbering of items listed in Part I Section A of the Export List. Part I Section A of the Export List lists military items.<br>HADDEX: Part 11 |
| **1A202** | Example for the numbering of goods listed in Annex I to the EC Dual-Use Regulation. Annex I to the EC Dual-Use Regulation lists dual-use items.<br>HADDEX: Part 11 |
| **Annex I to the EC Dual-Use Regulation** | Annex I of the EC Dual-Use Regulation sets out a uniform list of dual-use items for all Member States of the European Union and summarises the internationally agreed controls from the export control regimes for which there is an obligation to obtain authorisation for export from the customs territory.<br>http://www.bafa.de/DE/Aussenwirtschaft/Ausfuhrkontrolle/Gueterlisten/gueterlisten_node.html |
| **Annex IV of the EC Dual-Use Regulation** | Annex IV to the EC Dual-Use Regulation covers a subset of the items listed in Annex I. Items listed in Annex IV are also subject to a licensing requirement for deliveries within the customs territory of the EU (so-called intra-EU transfers).<br>http://www.bafa.de/DE/Aussenwirtschaft/Ausfuhrkontrolle/Gueterlisten/gueterlisten_node.html |
| **Australia Group (AG)** | International export control regime for chemicals and biological agents.<br>HADDEX: Part 11, Chapter 3 |
| **Basic scientific research (within the meaning of the GTA/ NTN)** | Experimental or theoretical work undertaken principally to acquire new knowledge of the fundamental principles of phenomena or observable facts, not primarily directed towards a specific practical aim or objective (see definition of terms to Annex I to the EC Dual-use Regulations and definition of terms to the Export List).<br>HADDEX: Part 11, Chapter 5.4 |
| **Catch-all provision** | Permits the imposition of licensing requirements for the export or intra-EU transfer with subsequent export of unlisted items which are to have a sensitive use (see, for example, Art. 4 EC Dual-Use Regulation).<br>HADDEX, Part 5 |
| **Chief Export Control Officer (CECO)** | The exporter is obliged to inform BAFA about the nomination of a Chief Export Control Officer who is personally responsible for compliance with the export control regulations. He must be a member of management.<br>http://www.bafa.de/DE/Aussenwirtschaft/Ausfuhrkontrolle/Antragstellung/Ausfuhrverantwortlicher/ausfuhrverantwortlicher_node.html |
| **Compliance Management System/ (CMS)** | Describes the entirety of the measures, structures and processes set up in an organisation (e. g. in an enterprise) in order to ensure compliance with the regulations.<br>Information leaflet Internal Compliance Programmes – ICP |
| **Consignee** | Contracting party of the exporter abroad and/or the first consignee of the items who can wield direct or indirect influence over the items or their use.<br>HADDEX: Part 1, Chapter 4.5 |

| Term | Definition / Explanation |
|---|---|
| **De-control notes** | The de-control notes are regulated in the General Technology Note (GTN) and in the Nuclear Technology Note (NTN) to the EC Dual-Use Regulation and to the Export List and describe exceptions from the control lists.<br>HADDEX: Part 11, Chapter 5.4 |
| **Dual-use items** | Dual-use items are goods, software and technology, which are usually used for civil purposes but can also be used for military purposes (see Art. 2 No. 1 EC Dual-Use Regulation). |
| **EC Dual-Use Regulation** | The EC Dual-use Regulation referred to in this Manual is (EC) Regulation No 428/2009 – the Community regime for the control of exports, transfer, brokering and transit of dual-use items<br>https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CE-LEX:02009R0428-20140702&from=DE<br>https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CE-LEX:32018R1922&from=DE<br>(current Annexes; status: 01/2019) |
| **Embargo** | Economic sanctions imposed on a state which either partially restricts (arms or partial embargo) or completely prohibits (total embargo) foreign trade with this state.<br>HADDEX: Part 2 |
| **End user** | Person abroad who consumes or uses, or processes the items. The end user can, but need not, be identical with the consignee.<br>HADDEX: Part 1, Chapter 4.5 |
| **End-use documents** | Documents to provide evidence of end user, final destination and end use.<br>http://www.bafa.de/DE/Aussenwirtschaft/Ausfuhrkontrolle/Antragsstellung/Endverbleibsdokumente/endverbleibsdokumente_node.html |
| **EORI Number** | The EORI number (Economic Operators' Registration and Identification Number) is an operator identification number awarded in the European Union by the competent authority used to identify economic operators and any other persons to the customs authorities.<br>http://www.zoll.de/DE/Fachthemen/Zoelle/EORI-Nummer/eori-nummer_node.html |
| **EU001 countries** | Beneficiary countries of the general export authorisation EU001 regulated in Annex IIa to the EC Dual-Use Regulation.<br>http://www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk genehmigungsarten_agg_aggeu001.pdf?_blob=publicationFile&v=5 |
| **Export** | Delivery or transmission of items (goods, software and technology) to a third country (see Section 2 (3) AWG, Art. 2 No. 2 EC Dual-Use Regulation). |
| **Exporter** | Exporter is any natural or legal person or partnership who/which holds the contract with the consignee in the third country and has the power for determining the sending or transmission of the items to a third country (see Section 2 (2) AWG, Art. 2 No. 3 EC Dual-Use Regulation). |
| **Export Control Officer (ECO)** | Employee (usually a member of middle management) who is commissioned with the operative implementation of the export business.<br>Information leaflet Internal Compliance Programmes – ICP |

| Term | Definition / Explanation |
|---|---|
| **Export control regimes** | Multilateral arrangements seeking to prevent the proliferation of nuclear, biological and chemical weapons and their means of delivery as well as to prevent the destabilizing accumulation of conventional arms and dual-use items.<br>HADDEX: Part 11, Chapter 3 |
| **Export List** | The Export List is located in Annex 1 of the German Foreign Trade and Payments Act (AWG). Part 1 Section A lists military items (weapons, ammunition and armament materials) whose export and/or intra-EU transfer always requires authorisation. Part 1 Section B contains a national list with dual-use items (so-called 900 numbers) whose export to certain countries requires authorisation.<br>http://www.bafa.de/DE/Aussenwirtschaft/Ausfuhrkontrolle/Gueterlisten/gueterlisten_node.html |
| **Financial sanctions** | Sanctions restricting the capital movements and payments of a state or individual persons.<br>HADDEX: Part 2, Chapter 4 |
| **Foreigner** | In principle, all persons who do not have their place of residence or habitual abode in Germany (Section 2 (5) in conjunction with (15) AWG).<br>In the context of Sections 49 et seq. AWV (technical assistance), those persons are also deemed to be foreigners whose place of residence or habitual abode in Germany is restricted to 5 years (Section 51 AWV). |
| **Foreign trade audit** | Monitoring of companies by the financial authorities in which compliance with the applicable foreign trade law is reviewed.<br>http://www.zoll.de/DE/Fachthemen/Pruefungen-Steueraufsicht/Zoll-und-Aussenpruefungen/zoll-und-aussenpruefungen_node.html |
| **General export licence (GEA)** | Special form of export or intra-EU transfer authorisation. Exports and intra-EU transfers which meet the requirements of a GEA are automatically approved ex officio. An authorisation does not have to be applied for. However, the use of a GEA requires prior registration.<br>http://www.bafa.de/DE/Aussenwirtschaft/Ausfuhrkontrolle/Antragsarten/Allgemeine_Genehmigungen/allgemeine_genehmigungen_node.html<br>HADDEX: Part 7, Chapter 5 |
| **General Technology Note (GTN)** | The General Technology Note precedes the control list in Annex I to the EC Dual-Use Regulation and in Part I of the Application Notes to the Export List. It regulates the conditions under which technology is covered by the control lists (including the need of being required).<br>HADDEX: Part 11, Chapter 5.4 |
| **Global export authorisation** | With a global export authorisation, a large number of exports and/or intra-EU transfers to different consignees and end users in different countries may be authorised for a specified total value or a specified total volume.<br>HADDEX: Part 7, Chapter 6<br>http://www.bafa.de/DE/Aussenwirtschaft/Ausfuhrkontrolle/Antragsarten/Sammelgenehmigungen/sammelgenehmigungen_node.html |
| **Individual export licence** | An individual export licence approves the export/intra-EU transfer to one consignee (and end user where applicable) based on one order (partial deliveries are also possible).<br>HADDEX: Part 6 |

| Term | Definition / Explanation |
|---|---|
| **Internal Compliance Programme (ICP)** | Compliance systems installed within companies serving to support observance of the statutory provisions particularly in foreign trade and payment transactions. Information leaflet Internal Compliance Programmes – ICP |
| **Intra-EU transfer** | Delivery or transmission of items within the customs territory of the EU (see Section 2 (21) AWG) |
| **Items** | The term 'items' covers goods, software and technology (see Section 2 (13) AWG). |
| **Listed items** | Items listed in the pertinent control lists, particularly in Part I Annex A of the Export List (military items) or in Annex I of the EC Dual-Use Regulation (dual-use items). HADDEX: Part 11 |
| **Military items** | Military items are listed conclusively in Part I Annex A of the Export List (Annex to the German Foreign Trade and Payments Act – AWV). They include arms and ammunition of all types as well as accessories, spare parts or fixing devices for arms, armour-plated vehicles, protective devices or clothing, and also pertinent software or technology. HADDEX: Part 1.1 |
| **Missile Technology Control Regime (MTCR)** | International export control regime for delivery systems capable of delivering weapons of mass destruction. HADDEX: Part 11, Chapter 3 |
| **NBC weapons** | nuclear, biological and chemical weapons |
| **Nuclear Suppliers Group (NSG)** | International export control regime for the non-proliferation of nuclear weapons. HADDEX: Part 11, Chapter 3 |
| **Nuclear Technology Note (NTN)** | The Nuclear Technology Note is provided in the control list in Annex I to the EC Dual-Use Regulation. It regulates the conditions under which technology of Category 0 is covered by Annex I. HADDEX: Part 11, Chapter 5.4 |
| **Preliminary request** | A preliminary request can be used to clarify in a legally binding manner whether a licence could be granted for a planned but currently not yet specific export project. http://www.bafa.de/DE/Aussenwirtschaft/Ausfuhrkontrolle/Antragsarten/Voranfrage_sonstige_Anfrage/voranfrage_sonstige_anfrage_node.html |
| **Prohibition on making economic resources available** | Ban on providing certain persons, organisations, entities and bodies, directly or indirectly, with funds or assets of any kind (economic resources) (e. g. Art. 2 (2) of Council Regulation (EU) No 269/2014 concerning restrictive measures in respect of actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine). HADDEX: Part 2, Chapter 4 |
| **Purchaser** | The purchaser is the person buying the items but not physically taking receipt of them. HADDEX: Part 1, Chapter 4.5 |
| **Software** | Software is a collection of one or more programs or microprograms fixed in any tangible medium of expression (see definition of terms in Annex I to the EC Dual-use Regulation). |

| Term | Definition / Explanation |
|---|---|
| **Technical assistance** | Technical assistance is any technical aid in connection with the repair, development, production, assembly, testing, maintenance or any other technical service. It also includes support provided orally, by telphone, and bye electronic means. (see Section 2 (16) AWG.) |
| **Technology** | Specific information necessary for the development, production or use of a product. This information takes the form of technical data or technical assistance (see definition of terms in Annex I to the EC Dual-Use Regulation). |
| **Technology Readiness Level (TRL)** | Scale (1 to 9) originally developed by NASA to assess the status of development of new technologies. http://www.nasa.gov/directorates/heo/scan/engineering/technology/txt_accordion1.html |
| **Terrorist lists** | EU lists of persons and organisations against which the restrictive measures to combat terrorism are applied that base on resolutions of the United Nations (see also financial sanctions) |
| **Third countries** | Third countries are the areas outside the customs territory of the European Union (see Art. 4 of Regulation (EU) No. 952/2013 – Union Customs Code) with the exception of Helgoland (see Section 2 (8) AWG). |
| **Trafficking and brokering transaction** | A trafficking and brokering transaction may i. a. be given if a person contributes by way of a trafficking or brokering activity to the delivery of goods from one third country to another third country (see Section 2 (14) AWG). |
| **War weapon** | Weapons intended for the waging of war. They are listed in the Annex to the German War Weapons Control Act (KrWffKontrG) (so-called war weapons list). http://www.bafa.de/DE/Aussenwirtschaft/Kriegswaffenkontrolle/kriegswaffenkontrolle_node.html |
| **Wassenaar Arrangement (WA)** | International export control regime for conventional arms and dual-use items. HADDEX: Part 11, Chapter 3 |

# Introduction and brief description

This Manual is primarily aimed at the academic and research sector, its representatives and employees as well as scientists as private individuals[1].

The goal is to raise the awareness of universities and research institutions for the aims of export control and to support them in the application of foreign trade law.

Restrictions under foreign trade law may play a role in the academic field, e. g. in research cooperation with foreign institutions, in cooperation with visiting scientists in institutes in Germany, in the transfer of scientific equipment (items) abroad and also in the transfer of knowledge and publications. Export control does not cover all activities in the academic and research sector by far, but it is the task of all those involved to identify and evaluate the individual cases covered. A responsible use of the legally guaranteed freedom of foreign trade (Section 1 AWG), freedom of sciences (Art. 5 (3) GG) etc. presupposes that in individual cases the limits of this freedom are also known.

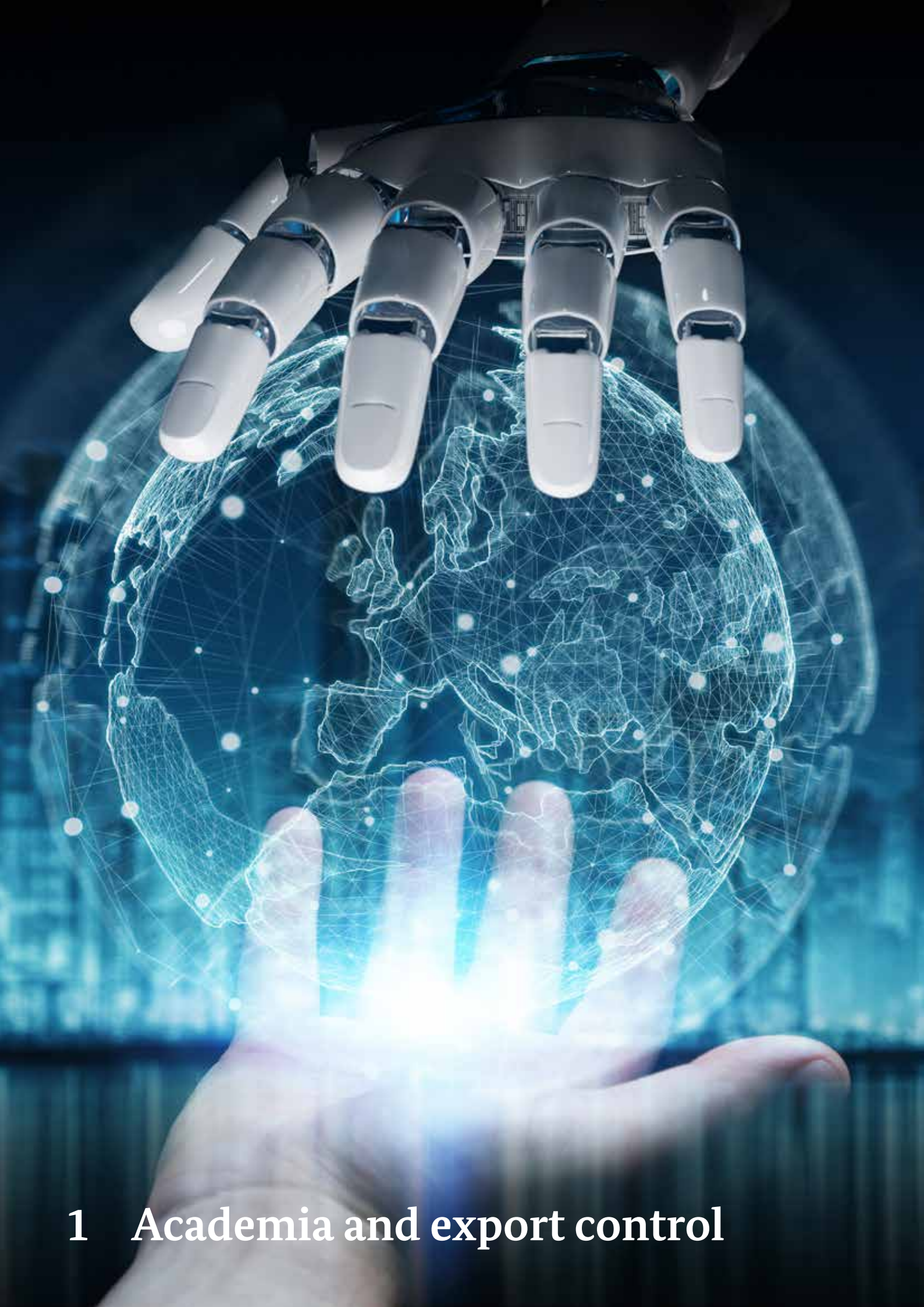
This publication was produced with the collaboration of the Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, the Fraunhofer-Gesellschaft, the Leibniz Institute DSMZ, the Robert Koch Institute and the Technical University of Berlin to whom BAFA expresses its thanks.

Please note that this publication cannot cover all conceivable individual aspects and does not claim to be complete. Reading this publication also cannot replace your own examination of the export control regulations but will provide you with a wide range of assistance, particularly with regard to finding the relevant information and the possibilities of communicating with BAFA.

Please also note that the statements contained herein are not legally binding. It is possible that public prosecutors' offices or courts may take a different view in individual cases.

The publication reflects the status as of January 2019.

[1] In the interest of better readability, no explicit distinction is made between gender-specific personal designations. The male form selected includes an adequate female form with equal rights.



# 1 Academia and export control

## 1.1 Export control objectives

German and European export controls focus on preventing both a proliferation of weapons of mass destruction and the uncontrolled transfer of conventional military equipment. At the same time, the aim is to stop sensitive items from being used for internal repression or other serious human rights violations, as well as to prevent the acquisition of those items by terrorists.

Export control is not exclusively a German concern. In fact, almost all industrial nations have committed internationally to establishing suitable controls.

## 1.2 Controlled items

Controls are carried out on conventional military items (arms, ammunition and armaments) as well as on items that are normally used for civilian purposes but can also be used in the military sector. The latter are referred to as dual-use items. Since the items concerned are predominantly used for civilian purposes, their potential for abuse is often not apparent at first glance.

**Example:**

Frequency convertors are used for speed control of electric drives in all industrial sectors. At the same time, they are also an essential component of gas ultra-centrifuges used in the field of uranium enrichment. Consequently, frequency convertors can be used indirectly for the production of weapons of mass destruction via the uranium enrichment process step and are therefore subject to export licence as a dual-use item.

The licensing requirements for military items and dual-use items are predominantly item-related, i. e. those items subject to control are listed in control lists. They are referred to as listed items. For items not covered by the control lists, a licence may be required if there are indications that they are being exported in connection with a critical use (use-related licensing requirement).

**Further information:**

**Module 2:** Listed items

## 1.3 Areas concerned

Activities in the following areas, among others, may be subject to an item- or use-related licensing requirement:

- Biology including biotechnology and medicine,
- Chemistry and biochemistry,
- Physics,
- Nuclear engineering,
- Energy and environmental technology,
- Information and communications technology,
- Aviation and aerospace,
- Mechanical engineering,
- Materials technology,
- Process engineering,
- Electrical engineering.

## 1.4 Activities that could be subject to export control

### Foreign-related activities

Predominantly only cases with a foreign element are subject to export control. Restrictions refer inter alia to the delivery of items abroad (export or intra-EU transfer of items) – this also includes the transfer of knowledge by email, cloud or data carrier – as well as the verbal transfer of knowledge and skills (so-called technical assistance). For the academic sector this means the exchange of goods (e. g. samples, models, experimental setups, materials) and knowledge within international research cooperations can also be subject to export controls.

### Domestic-related activities

However, a licensing requirement may also apply in a few selected areas if a foreign person, such as a visiting scientist at an institute in Germany, is taught sensitive knowledge or corresponding skills.

**Personal sanctions**

Irrespective of a foreign/domestic element, so-called personal sanctions (also known as financial sanctions or less precisely as terrorist list) must be observed. They prohibit making funds or assets of any kind (economic resources) available, directly or indirectly, to natural or legal persons included in the sanction list. For university and research institutions – as well as for industry – this means that they must ensure that persons with whom they enter into cooperation are not included in the sanction lists.

**Further information:**

**Module 1:** Licensing requirements and prohibitions

## 1.5 Purpose of research

The licensing requirements with respect to listed items apply irrespective of the purpose for which the items are to be used in the specific case. A licensing requirement therefore exists even if the items are to be used for civil purposes. Against this background, export control are also relevant for universities that have a civil clause, i. e. are committed to purely civil research. The only decisive factor for control is the potential risk of misuse of the items from the point of view of export control law respectively whether the items are listed in the control lists. It is therefore important that academics – regardless of their specific research purpose – do not lose sight of potential risks of misuse.

**NB**

The prohibitions and licensing requirements under foreign trade law apply irrespective of whether the subjective opinion of the German participants is that the research is aimed at civil or military use.

## 1.6 Scientific freedom rules! Does it really?

Scientists, research institutions, universities, their representatives and employees etc. must comply with the same legal regulations as industry. Where items are exported, e. g. if equipment is sent abroad, knowledge transmitted abroad by email or know-how is passed on to a foreign visiting scientist to an institute in Germany, scientists are therefore obliged to check whether this is prohibited by law or whether a licence is required.

**NB**

The constitutionally guaranteed freedom of sciences does not mean that restrictions under foreign trade law can be ignored. The aim of export control is not to restrict research or censor its results but purely to prevent their misuse.

A large number of activities in the academic field will usually relate to information that is part of basic scientific research or is in the public domain. The passing on of such information is exempted from the licensing requirement by de-control notes:

Unlike the export of goods, the passing on of knowledge that is already in the public domain or a part of basic scientific research does not require any licence. In this context, however, it should be noted that the scientific classification of research as basic scientific research does not necessarily correspond to its classification under foreign trade law. For example, research funded by industry is generally not basic scientific research within the meaning of foreign trade law.

## 1.7 The role of consignee and country of destination

**NB**

The de-control notes of in the public domain and basic scientific research apply only to technology and not to goods, such as equipment, samples etc.

**Further information:**

**Module 3:** The exceptions for technology: in the public domain and basic scientific research

The question as to whether a project is not only subject to licence but is also eligible for licence depends, among other things, on the country of destination and the person of the consignee. Special – but not exclusive – attention is paid to countries that are known or expected to be seeking knowledge of relevance to proliferation. These states try – possibly also through private companies, universities and research institutions in their own country – to acquire strategically relevant knowledge from the above mentioned areas – either for their own military activities or in order to pass it on profitably to other states.

Often also universities and research institutions are the target of procurement efforts of this type. Scientific cooperation and the exchange of academics (from professor to student) between proliferation states and western industrial nations are seen as promising ways of acquiring knowledge that can then be used in the development and production of weapons of mass destruction or in other arms projects, creating scientific and technical independence in these fields. In particular, associations, federations, private and cultural initiatives as well as technology centres founded for citizens of critical countries in western countries offer a good basis for contacts and the mutual exchange of information.

**NB**

In order to acquire items subject to export control, risk states frequently use conspiratorial methods. According to the Federal Office for the Protection of the Constitution (the domestic intelligence service of Germany), these include, for example:

- use of a neutral trading company to hide from the seller that a state-controlled company is actually making the purchase
- use of undercover procurement networks and specially founded camouflage companies as middle men
- concealment of the end user by the use of harmless-sounding company names or the use of state universities as alleged end users
- use of neutral or misleading project names
- handling of inquiries and deliveries through one or more companies in third countries (indirect deliveries)
- establishment of small companies in the country or abroad to handle a single transaction
- misuse of suppliers who are inexperienced in export matters
- use of companies in the country of manufacture or supply which hide illegal procurements under a mass of legal transactions or
- division of necessary procurements into many individual packages that are not suspicious in themselves so that the proliferation relevance of the entire action is difficult to discern[1].

[1] Brochure Proliferation – Wir haben Verantwortung (Proliferation – it's our responsibility) of the Federal Office for the Protection of the Constitution, page 9 f.

**Example:**

The best known example of misuse of knowledge acquired at European universities is the Khan case:

Abdul Kadir Khan was educated in European universities and eventually became the father of the Pakistani atomic bomb. According to his own statements, he also passed on his knowledge to North Korea, Iran and Libya.

Due to the risks resulting from the contribution to a procurement process, inquiries or orders for the supply of items or technical assistance as well as applications or requests to participate in certain events should be subject to close scrutiny if the person making the inquiry gives rise to the suspicion of possible misuse of technical knowledge. Suspicious circumstances may also be taken into account when initiating business transactions, structuring their content and handling them. This also applies to unusual services of friendship.

**Further information:**

Brochure Proliferation – Wir haben Verantwortung (Proliferation – it's our responsibility) of the Federal Office for the Protection of the Constitution

Assistance and examples of suspicious circumstances resulting from the person making the request orunusual behaviour patterns can also be found in **Module 1**.

## 1.8 Advantages of a functioning export control

The responsible handling of sensitive items and the installation of organisational measures to comply with foreign trade law offer numerous advantages and help to prevent serious disadvantages for the individual researchers and the university or research institution:

- University excellence is inconceivable without compliance with legal provisions. Compliance with foreign trade regulations is also for universities an indispensable compliance standard.
- The probability of irregularities being detected during foreign trade external audits which cast doubt on reliability under foreign trade law – a basic prerequisite for the granting of licence – is reduced.
- The risk of serious reputational damage, which may result from unauthorised transactions and in particular from contributing to procurement transactions, is reduced.
- Clear responsibilities and organisational structures ensure transparent responsibilities and can create more security in one's own actions and increase protection from liability under criminal and administrative law.
- In the long term, international cooperation may be impaired if an internal audit conducted under export control law is not conducted or is conducted too late.
- Issues of personal ethical responsibility and the consequences of one's own actions can be assessed more reliably if the legal boundaries are clear.

**Further information:**

**Module 6:** Internal Compliance Programme

## 1.9 US law

Activities at research institutions and universities may also be subject to US export regulations in individual cases. Failure to comply with these regulations can have serious consequences, e. g. inclusion in a so-called black list, fines or even imprisonment by the US.

**NB**

BAFA is not responsible for providing information on the interpretation and application of US law. Information may be obtained from the responsible US authorities, in particular from the Bureau of Industry and Security (BIS) and the Office of Foreign Assets Control (OFAC).

**Further information:**

HADDEX, Part 12 (German)

## 1.10 Other restrictions

In addition, restrictions on science and research may arise not only from foreign trade law but also from other legal regulations (German Animal Protection Act - TierSchG, German Genetic Engineering Act – GenTG etc.) and ethical principles.

**Further information:**

Wissenschaftsfreiheit und Wissenschaftsverantwortung – Empfehlungen zum Umgang mit sicherheitsrelevanter Forschung (Scientific freedom and scientific responsibiity – recommendations fro handling security-relevant research) of the Deutsche Forschungsgemeinschaft (DFG) and the Deutsche Akademie der Naturforscher Leopoldina e.V.

## 1.11 Aim of this manual

It is not the aim of BAFA to hinder scientific progress but to inform universities and research institutions about possible prohibitions and licensing requirements as well as to provide assistance in this complex field of law.

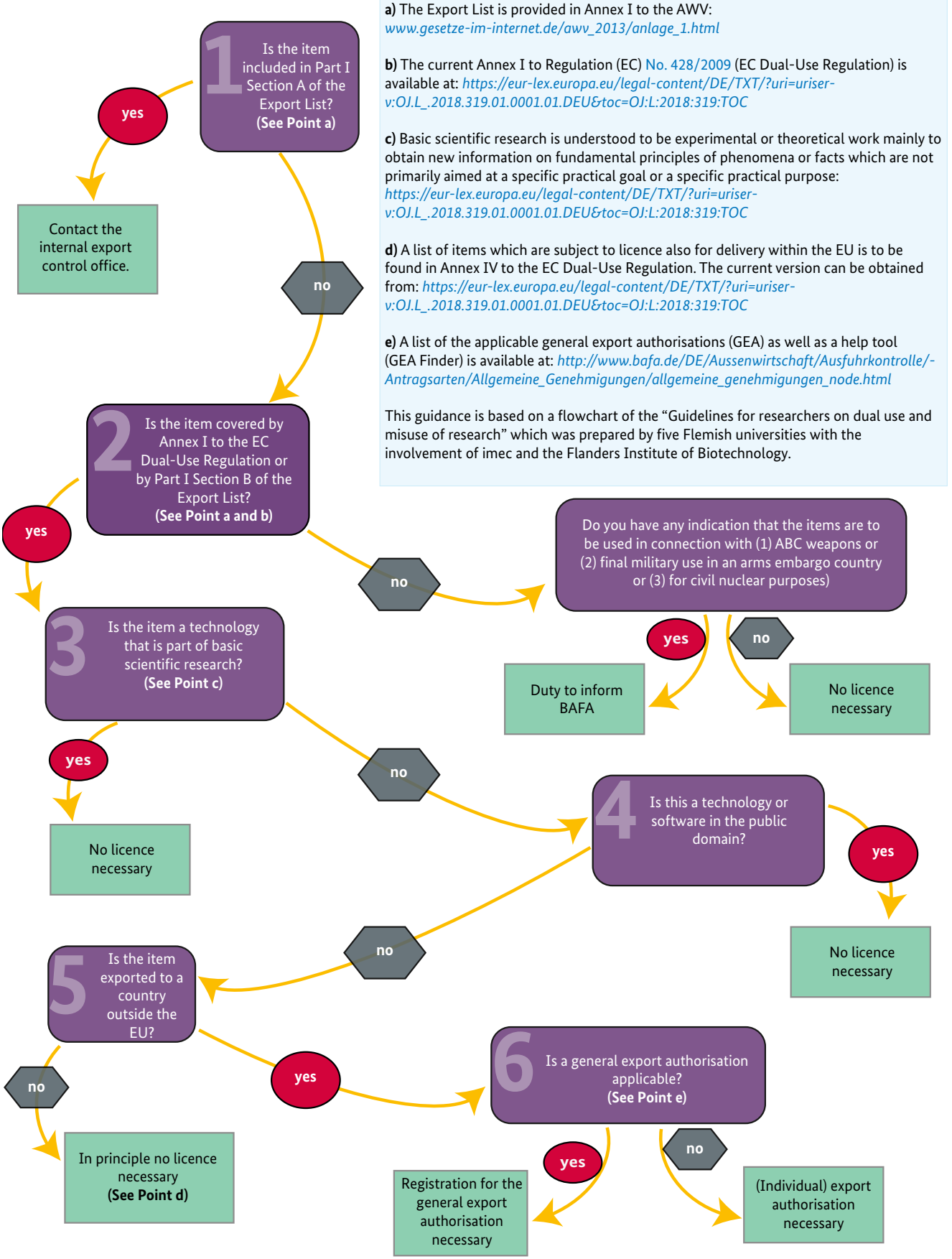
**NB**

The prevention of proliferation is our common task! As a representative and/or employee of the academic and research sector, or as a scientist or private individual, you are responsible for compliance with export control regulations relating to your own work.

Check your projects to see whether they require licence. BAFA's publications will help you to do this.

If you have any questions, first contact your institution's internal export control office. If you need further assistance and your project is subject to licence after internal review, please contact BAFA.

# Non-binding guidance for assessing licensing obligations




**a)** The Export List is provided in Annex I to the AWV: *www.gesetze-im-internet.de/awv_2013/anlage_1.html*

**b)** The current Annex I to Regulation (EC) No. 428/2009 (EC Dual-Use Regulation) is available at: *https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=uriser-v:OJ.L_.2018.319.01.0001.01.DEU&toc=OJ:L:2018:319:TOC*

**c)** Basic scientific research is understood to be experimental or theoretical work mainly to obtain new information on fundamental principles of phenomena or facts which are not primarily aimed at a specific practical goal or a specific practical purpose: *https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=uriser-v:OJ.L_.2018.319.01.0001.01.DEU&toc=OJ:L:2018:319:TOC*

**d)** A list of items which are subject to licence also for delivery within the EU is to be found in Annex IV to the EC Dual-Use Regulation. The current version can be obtained from: *https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=uriser-v:OJ.L_.2018.319.01.0001.01.DEU&toc=OJ:L:2018:319:TOC*

**e)** A list of the applicable general export authorisations (GEA) as well as a help tool (GEA Finder) is available 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 was prepared by five Flemish universities with the involvement of imec and the Flanders Institute of Biotechnology.

## 1.12 Case studies

The cases described below are based on the practical experiences of German universities and research institutes and are addressed and solved in Module 1.

### Export and intra-EU transfer

**Case 1: Export of listed items**

A German research institute would like to export parts with boron compounds and boron coatings to New Zealand.

> **Case solution:** page 30

**Case 2: Scientists taking listed items with them**

A scientist plans to travel by plane to a third country. In his hand luggage, he would like to take along a prototype that falls within Annex I to the EC Dual-Use Regulation. The item will remain in the third country.

Variants:

a) The scientist takes back the prototype to Germany on his return journey.

b) The prototype is not covered by any control list.

> **Case solution:** page 30

**Case 3: Research vessel at sea – taking listed items on research voyages**

A research vessel carrying listed dual-use items departs from the Port of Hamburg and leaves the territorial waters which extend over 12 nautical miles in Germany.

Variants:

a) The research vessel returns to the Port of Hamburg without calling at another port.
b) During its voyage, the research vessel will moor in the port of a third country and then return to the Port of Hamburg.

> **Case solution:** page 31

**Case 4: Satellites**

A research institute would like to send a satellite which falls under number 9A004b of Annex I to the EC Dual-Use Regulation to a consignee in Russia so that it may transport the satellite from Vostochny Cosmodrome to earth orbit. The signals from the satellite are then received by the research institute in Germany.

> **Case solution:** page 32

### Case 5: (Informal) exchange between researchers

A researcher from Germany is working with a researcher from India to develop a new cultivation method for the Nipah virus. The German researcher sends his research results to the Indian researcher by email.

> **Case solution:** page 32

### Case 6: Scientific publications

a) A professor publishes a research report. It can also be purchased for a fee in third countries after prior registration, which is open to everyone. In addition to general remarks, the report contains essential (required) technology for the development or production of dual-use items and is therefore subject to a list number in Annex I to the EC Dual-Use Regulation.

b) The report containing listed information is sent to a co-author or colleague in South Africa for review and comment prior to publication.

> **Case solution:** page 33

### Case 7: Exports under public sector programmes

The EU is initiating a programme to create a globally accessible database of scientific data from EU-funded research institutions. Scientists from a German institute would like to enter their data into this database.

> **Case solution:** page 33

## Technical assistance

### Case 8: Foreign visiting reseachers

A post-doctoral researcher from Pakistan would like to conduct a research project on radar systems at a German university.

Variants:

a) He is an Indian student.

b) An Iranian citizen residing permanently in Canada would like to conduct research at an institute in Germany for his doctoral thesis in the field of valves and pumps. For this purpose, he will stay in Germany for one year. He holds a visa from the German embassy in Ottawa.

> **Case solution:** page 41

# 2 Module 1

Licensing requirements and prohibitions

German and European export controls are based on international treaties and agreements as well as international export control regimes and are part of the worldwide efforts to reduce the risk of proliferation.

In foreign trade, the following legal acts must be observed in particular:

- War Weapons Control Act (KrWaffKontrG)
- German Foreign Trade and Payments Act and Foreign Trade and Payments Ordinance (AWG/AWV)
- Regulation (EC) No. 428/2009 (EC Dual-Use Regulation)
- Embargo regulations

## 2.1 Licensing requirements and freedom of sciences

The prohibitions and licensing requirements under foreign trade law also apply to activities that fall under the protection of scientific freedom (Art. 5 (3) Basic Law – GG). This is because scientific freedom is not granted without limits. It is subject to direct constitutional barriers, i. e. it can be restricted if it is required to fall behind other constitutionally guaranteed legal interests (e. g. human dignity, right to life).

The prohibitions and licensing requirements of foreign trade law serve the purposes set out in Section 4 AWG: the peaceful coexistence of people as well as the security interests and foreign relations of the Federal Republic of Germany. These too are high-ranking objects of protection that are capable of restricting freedom of sciences. World peace as can be seen from the preamble (To promote world peace in a united Europe) is even the guiding principle of the Basic Law (see also Art. 1 (2), 23 et seq., 59 GG).

**NB**

The constitutionally guaranteed freedom of sciences does not mean exemption from the prohibitions and licensing requirements of foreign trade law.

## 2.2 Actions subject to licence

The licensing requirements under foreign trade law primarily refer to the following actions:

- Export of items
- Intra-EU transfer of items
- Technical assistance
- Trafficking and brokering transactions

The following definitions of terms have been simplified to make them easier to understand. Legally binding are only the legal definitions.

**Export and intra-EU transfer**: The terms export and intra-EU transfer describe transactions in which items (goods, software or technology) are taken abroad in an embodied form. Whilst the term 'intra-EU transfer' refers to the delivery or transmission of items to another **EU Member State**[1], the term 'export' refers to the delivery or transmission of items to a **third country**, i. e. a country outside the EU.

**Technical assistance:** Technical assistance is passing on unembodied knowledge and skills.

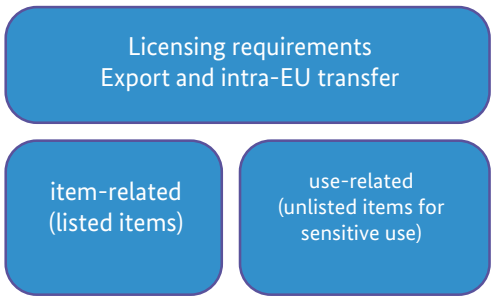
**Trafficking and brokering transaction:** A trafficking and brokering transaction can exist in particular if a person contributes - by way of a trafficking or brokering activity - to items that are in a third country being sent to another third country.

[1] Certain special areas do not belong to the customs territory of the EU but similarly belong to the EU, e. g. Helgoland, French Guyana.

## 2.3 Licensing requirements for the export and intra- EU transfer of items

Foreign trade law sets outs prohibitions and licensing requirements for the export and intra-EU transfer of items. The term 'items' refers to goods, technology and software. Items are subject to a licensing requirement firstly if they are named in a control list (so-called listed items) and secondly if they are unlisted items which are exported or transferred in connection with a critical use. The provisions laying down the use-related licensing requirements are also referred to as catch-all provisions.

The item-related and use-related licensing requirements are in an exclusive relationship, i. e. one and the same export **cannot** be subject to an item-related licensing requirement and a use-related licensing requirement at the same time.




**Further information on the definition of listed items:**

**Module 2:** Listed items

**Practical tips: Exporting listed items:**

**- Empirical report on export control of the Helmholtz-Zentrum Berlin für Materialien und Energie (HZB) -**

Usually, HZB as an exporter ships samples and sample material as well as containers for them which are not subject to the control lists. From time to time, however, scientific instruments are given to other institutions abroad. These instruments are usually characterised by a very complex structure and a large number of individual components, most of which can be easily dismantled.

**Example of the shipping of the BioRef instrument to Australia:**

- Purpose: to enable research on soft matter, solid-liquid interfaces and thin films by neutron scattering
- Dismantled in 257 individual parts and packed in 43 wooden crates (3 containers), weighing a total of 29 tons
- Parts with boron compounds and boron coatings for 75 parts listed under 1C225; exported under General Export Authorisation EU001[1]

Prior to the delivery or transportation of any such device, it is necessary to take certain preparatory measures and observe contractual regulations:

- Complete device and component list with packing lists

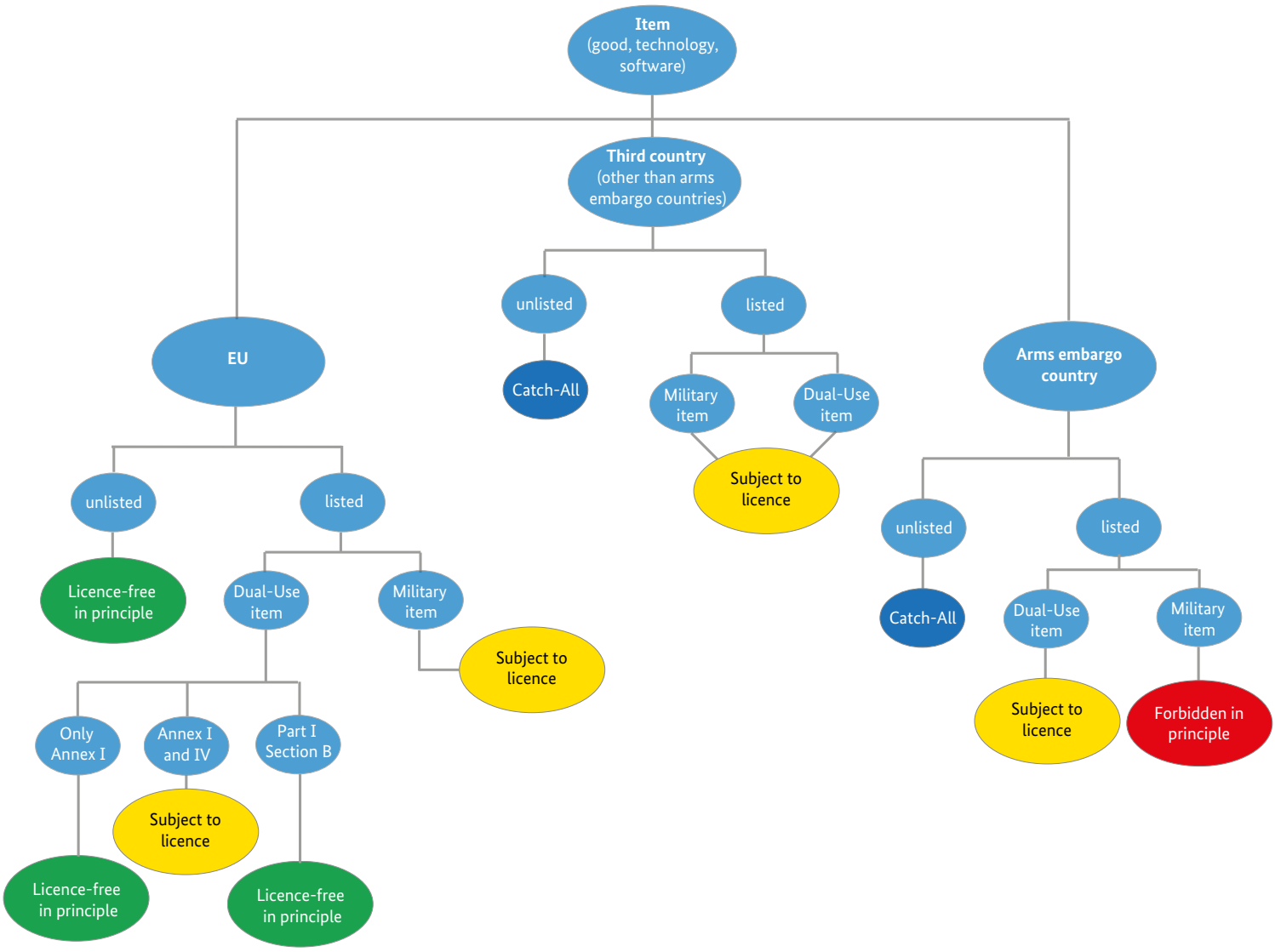
1 General Export Authorisation EU001, see here Module 4: Procedural facilitations.

- Checking the purchase documents for any existing end-use clauses[2] of the manufacturers/suppliers
- Checking the classification of components using list items
- Preliminary request or export request, depending on stage of contractual negotiations
- Contractual provisions: delivery conditional to export authorisations obtained; agree to use only for peaceful purposes
- Preparation of the documents for customs clearance

2 Clause obliging the buyer to provide information on the end destination and end use.

### 2.3.1 Overview of licensing requirements for exports and intra-EU transfers

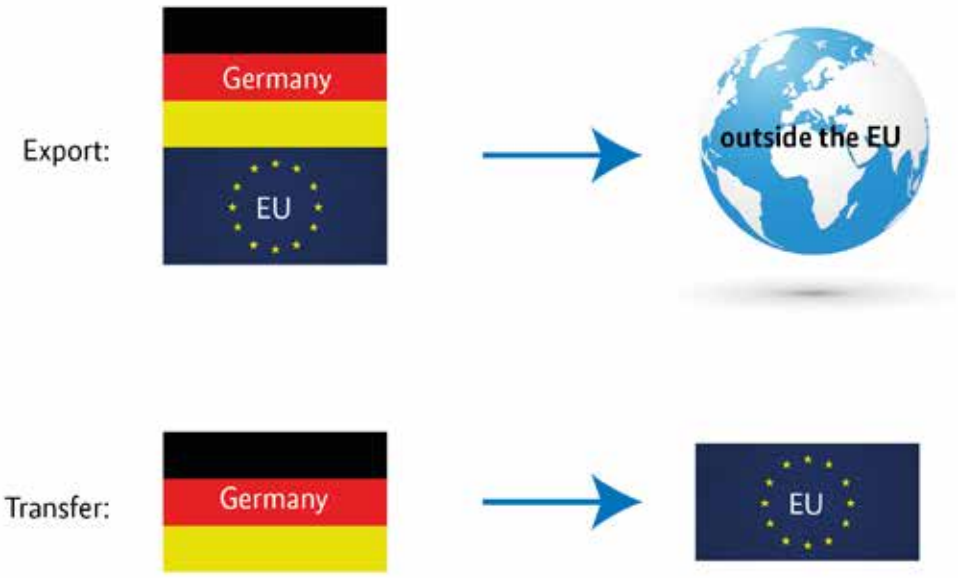
The following chart provides an overview of the licensing requirements in connection with the export and intra-EU transfer of items. Embargo regulations, which must always be reviewed as a matter of priority, are not presented.



### 2.3.2 Definitions of export and transfer

The Licensing requirements refer to the terms export and intra-EU transfer.

**Export and intra-EU transfer**




The term export describes the delivery of goods and the transmission of software and technology from Germany or the EU to a third country. Third countries are all states outside the customs territory of EU.

| Licensing requirements for exports | |
|---|---|
| **item-related**<br>(listed items) | **War weapons:** Licensing requirement pursuant to Section 3 (KrWaffKontrG) and Section 8 (1) No. 1 AWV<br>**Other military items:** Licensing requirement pursuant to Section 8 (1) No. 1 AWV (items of Part I Section A of the Export List)<br>**Dual-use-items:** : Licensing requirement pursuant to<br>Art. 3 (1) EC Dual-Use Regulation (items of Annex I)<br>or<br>Section 8 (1) No. 2 AWV (items of Part I Section B of the Export List) |
| **use-related***<br>(unlisted items for sensitive use)<br><br>*An authorisation is required only if the exporter either has knowledge of the sensitive use or has been informed of it by BAFA.<br><br>Further information on knowledge: Module 1, page 36. | **Unlisted items:** Licensing requirement pursuant to<br><br>Section 9 AWV: Export in connection with civil nuclear purposes in Algeria, Iraq, Iran, Israel, Jordan, Libya, North Korea, Pakistan, Syria,<br><br>Art. 4 (1) EC Dual-Use Regulation: Export in connection with a use for NBC weapons or suitable delivery technology,<br><br>or<br><br>Art. 4 (2) EC Dual-Use Regulation: Export in connection with a military end use in an arms embargo country. |

**Excursion: Arms embargo**

within the meaning of Art. 4 (2) EC Dual-Use Regulation

Art. 4 (2) EC Dual-Use Regulation sets out a licensing requirement for the export of items if made in connection with a military end use in an arms embargo country. Currently, arms embargos within the meaning of Art. 4 (2) of the EC Dual-Use Regulation apply to the following countries:

| | | |
|---|---|---|
| Armenia | Democratic People's | Zimbabwe |
| Azerbaijan | Republic of Korea | Somalia |
| Iran | Lebanon | Sudan |
| Iraq | Libya | South Sudan |
| Congo | Myanmar | Venezuela |
| Belarus | Russia | Central African Republic |

Status: 01/2019

A current overview of the embargos may be obtained from:
http://www.bafa.de/DE/Aussenwirtschaft/Ausfuhrkontrolle/Embargos/embargos_node.html.

**Intra-EU transfer** refers to the delivery of goods and transmission of software technology from Germany to a different **EU Member State**.

| Licensing requirements for intra-EU transfers | |
|---|---|
| **item-related**<br>(listed items) | **War weapons:** Licensing requirement pursuant to Section 3 KrWaffKontrG and Section 11 (1) No. 1 AWV<br><br>**Other military items:** Licensing requirement pursuant to Section 11 (1) No. 1 AWV (items of Part I Section A of the Export List)<br><br>**Dual-use items:**<br>**Items of Annex I EC Dual-Use Regulation**<br>Free from authorisation in principle; exception: licensing requirement for items listed in Annex IV pursuant to Art. 22 (1) EC Dual-Use Regulation<br><br>**Items of Part I Section B of the Export List**<br>Free from authorisation in principle; exception: licensing requirement pursuant to Section 11 (1) S. 2 AWV if the transferor is aware that the final destination country is outside the EU as well as outside Switzerland, Liechtenstein and Iceland |
| **use-related***<br>(unlisted items for sensitive use)<br><br>*An authorisation is required only if the exporter either has knowledge of the sensitive use or has been informed of it by BAFA.<br><br>Further information on knowledge: Module 1, page 36. | **Unlisted items:** Licensing requirement pursuant to Section 11 (3) AWV if final destination of items is outside the EU and transfer in connection with civil nuclear purposes in Algeria, Iraq, Iran, Israel, Jordan, Libya, North Korea, Pakistan, Syria |

### 2.3.3 Type and method of export or intra-EU transfer

The terms of export and intra-EU transfer not only cover the commercial forwarding of items – e. g. by companies – but also the forwarding and carriage by natural persons, including researchers and scientists. They also cover deliveries and transmissions that are only temporary. It is also irrelevant how the export or intra-EU transfer is carried out. Possible modalities include the following:

**Goods**
(e. g. prototypes, test samples, devices etc.)

- Carriage (e. g. in hand luggage in an aircraft or vehicle)
- Sending via mail or shipping via a forwarder

**Technology and software**
(Technical data may take forms, such as blueprints, plans, diagrams, models, formulae, tables, engineering designs and specifications, manuals and instructions written or recorded on other media or devices such as disk, tape or read-only memories.)

- Carriage in paper from or on a mobile terminal device, storage medium (laptop, smartphone, USB stick, CD/DVD)
- Transmission by post, email or fax
- Setting up on a server in a third country
- Granting of access possibilities to a server with technology or software in Germany or an EU Member State
- Setting up of a cloud which persons from other EU States or third countries also have access
- Publication on a website
- Publication of technical articles (also) abroad

The licensing requirements under foreign trade law must also be observed in the case of exports and intra-EU transfers that take place within the framework of research projects initiated or (financially) supported by a public body (Federal ministries, EU agencies etc.)

**Further information on the terms of export and intra-EU transfer:**

Information leaflet Export control – a brief outline

HADDEX, Part 3-5 (German)

### 2.3.4 Exceptions

In principle, exports and intra-EU transfers do not require licence if they involve listed technology (not goods!) that is part of basic scientific research or in the public domain.

The question of which technology is in the public domain or part of basic scientific research needs to be examined on a case-by-case basis. It should be noted that the scientific classification of a research activity by the individual scientist does not necessarily coincide with the classification under foreign trade law.

Furthermore, the export and intra-EU transfer of information required for patent applications do not require authorisation (exception: nuclear technology).[2]

The exceptions mentioned follow from the General Technology Note (GTN) or Nuclear Technology Note (NTN) to the EC Dual-Use Regulation and Export List. The exceptions are also referred to as de-control notes.

**NB**

The exceptions of the General Technology Note and the Nuclear Technology Note only apply to technology and not to goods.

**Further information on the exceptions (de-control notes):**

**Module 3:** The exceptons for technology: in the public domain and basic scientific research

2 See also Section 38 (4) German Patent Act (PatG).

## 2.4 Consideration of the cases on the subject of export and intra-EU transfer

### Case 1: Export of listed items

A German research institute would like to export parts with boron compounds and boron coatings to New Zealand.

*Parts containing boron compounds and boron coatings are covered by number 1C225 of Annex I to the EC Dual-Use Regulation. Their export is therefore subject to licence in accordance with Art. 3 (1) of the EC Dual-Use Regulation.*
*A procedural facilitation may possibly apply to exports in the form of a General Export Authorisation (GEA). GEA EU001 in particular may come into consideration*[1].

Further information on listed items and list numbers
**Module 2:** Listed items

1 For general export authorisations, see Module 4: Procedural facilitations.

### Case 2: Scientists taking listed items with them

A scientist plans to travel by plane to a third country. In his hand luggage, he would like to take along a prototype that falls within Annex I of the EC Dual-Use Regulation. The item will remain in the third country.

Variants:

a) The scientist takes back the prototype to Germany on his return journey.

b) The prototype is not covered by any control list.

*The export is subject to licence pursuant to Art. 3 (1) to the EC Dual-Use Regulation. The manner of border crossing is irrelevant to the existence of the licensing requirement. The export can therefore also be made by taking items on board the aircraft. Whether the carrying of the prototype in hand luggage is opposed by other safety consideration is not a question of foreign trade law.*

*a) In this case constellation too, the export is subject to licence pursuant to Art. 3 (1) of the EC Dual-Use Regulation. The fact that the export is only temporary does not affect the licensing requirement. However, the temporary nature of the export may affect the project's eligibility for licence.*

*b) The export of an item may also be subject to licence even if it is not covered by the respective control list. This is because a licensing requirement may also result from the so-called catch-all provisions. They are to be found in Art. 4 of the EC Dual-Use Regulation and Section 9 of the AWV. According to these regulations, the export is subject to licence if the items to be exported are or may be intended, in whole or in part, to be used in connection with*

- *NBC weapons or suitable missiles (Art. 4 (1) of the EC Dual-Use Regulation,*
- *Military end-use in an arms embargo country (Art. 4 (2) of the EC Dual-Use Regulation), or*
- *Civil nuclear facilities in Algeria, Iraq, Iran, Israel, Jordan, Libya, North Korea, Pakistan or Syria*

### Case 3: Research vessel at sea – taking listed items on research voyages

A research vessel carrying listed dual-use items departs from the Port of Hamburg and leaves the territorial waters which extend over 12 nautical miles in Germany.

Variants:

a) The research vessel returns to the Port of Hamburg without calling at another port.
b) During its voyage, the research vessel will moor in the port of a third country and then return to the Port of Hamburg.

*If dual-use items are carried on a research vessel, an export is deemed to have taken place when the ship leaves the coastal area belonging to the territorial waters[1] irrespective of whether it calls at the port of a third country or not. For an export to exist, it is sufficient for the customs territory of the EU to have been left. It is not necessary for the items to cross the border with the territory of a third country.*

*Therefore, the following applies with regard to the individual variants:*

*a) When leaving the territorial waters belonging to a national territory, an export subject to licence pursuant to Art. 3 (1) EC Dual-Use Regulation exists.*

*b) The export is subject to licence pursuant to Art. 3 (1) of the EC Dual-Use Regulation.*

1 The territorial waters are part of the national territory in accordance with Art. 2 of the United Nations Convention on the Law of the Sea (UNCLOS). Each state may determine the width of the territorial waters up to a limit not exceeding 12 nautical miles (Art. 3 UNCLOS).

### Empirical report on export control of the Alfred-Wegener-Institut für Polar- und Meeresforschung Stiftung des öffentlichen Rechts (AWI)

An important task of the AWI is to provide polar and marine research infrastructure. In addition to its own research stations, ships and aircraft, this also includes various scientific instruments used on expeditions. There is a licensing requirement under export control law for some of the equipment used.

The following pieces of equipment can be listed by way of example:

- **Underwater acoustics 6A001**
  Hydrophones, streamers, acoustic recorders, localisation and sonar systems
- **Navigation systems 7A003**
  Giro compass, inertial systems
- **Radar systems 6A008, 6A108**
  Ice and snow thickness radar
- **Magnetometers 6A006**
  **Gravimeter 6A007**
- **Marine technology 8A001, 6A003**
  Autonomous underwater vehicles (AUV)
  Remote-operated vehicles (ROV)
- **Modems for satellite data transmission, 5A002**
- **Camera systems 0015d**
  FIRST infrared camera
- **Sea glider 8A001d**

**Example 1 – Sea gliders**
A sea glider is a scientific underwater vehicle that collects data automatically in deep sea regions and therefore falls under Category 8 of the EC Dual-Use Regulation. In general, the equipment used may also fall under several categories of the Regulation and/or spare parts intended for the equipment may be classified in categories other than the original equipment. A relevant aspect in terms of export control is whether the entire equipment or only a component of the overall system requires licence. Since the use in the international territories of third countries often requires complex equipment consisting of several components, it may be the case that only individual components within the overall system are subject to licence[1]. In this example, the equipment itself is subject to authorisation.

**Example 2 – Infrared cameras**
In order to satisfy the environmental requirements of the Federal Environment Agency which are based on the Protocol on Environmental Protection to the Antarctic Treaty, an infrared camera permanently mounted on the research vessel is used in Antarctica to monitor marine mammals. This device was originally developed by the manufacturer for military purposes and is therefore subject to export control as military equipment. This may also apply to spare parts taken on board for the camera.

1 According to the so-called component rule, a controlled item (component) remains covered by the control lists even if it is incorporated in a non-controlled item for export, provided that the component is a principal element of the exported good and can be feasibly removed or used for other purposes (see Preliminary remark 2 to the General Notes to Annex I).

### Case 4: Satellites

A research institute would like to send a satellite which falls under number 9A004b of Annex I to the EC Dual-Use Regulation to a consignee in Russia so that it may transport the satellite from Vostochny Cosmodrome to earth orbit. The signals from the satellite are then received by the research institute in Germany.

*The export to Russia is subject to licence pursuant to Art. 3 (1) of the EC Dual-Use Regulation. This also applies if the end user of the satellite is an institute in Germany because there is a border crossing to Russia.*

### Case 5: (Informal) exchange between researchers

A researcher from Germany is working with a researcher from India to develop a new cultivation method for the Nipah virus. The German researcher sends his research results to the Indian researcher by email.

*Human and animal pathogens such as the Nipah virus may be covered by number 1C351 of Annex I to the EC Dual-Use Regulation. Technology according to the General Technology Note for the development or manufacture of equipment or materials of number 1C351 fall within number 1E001 of Annex I to the EC Dual-Use Regulation.*

*Accordingly, the following applies: where research results of a German researcher contain findings that fall under number 1E001 of Annex I to the EC Dual-Use Regulation , and where these are not in the public domain or part of basic scientific research, the German researcher requires licence to send the email to the researcher in India pursuant to Art. 3 (1) of the EC Dual-Use Regulation because borders are crossed.*

### Case 6: Scientific publications

a) A professor publishes a research report. It can also be purchased for a fee in third countries after a prior registration, which is open to everyone. In addition to general remarks, the report contains essential (required) technology for the development or production of dual-use items and is therefore subject to a list number in Annex I of the EC Dual-Use Regulation.

b) The report containing listed information is sent to a co-author or colleague in South Africa for review and comment prior to publication.

*a) The publication of listed technology constitutes an export or intra-EU transfer if the publication is also available abroad to an unlimited group of persons. An export or intra-EU transfer can therefore also be affirmed if the publication is made by a German publisher. The decisive aspect is whether the publication can also be ordered abroad or viewed online. If the publication is not available abroad, there is no export or intra-EU transfer subject to licence.*
*The following therefore applies in this scenario: the publication of the article constitutes an export subject to licence.*

*b) If an article or a book containing listed information is sent to a co-author or a colleague abroad for review and comment before publication, this also constitutes an export or intra-EU transfer that is subject to licence in accordance with the principles outlined above.*

**NB**

Scientific publications rarely contain information that is subject to export control. The requirements of the control lists of items numbers are generally very specific and so high that they are usually not met by scientific publications. However, it is necessary to check the list if dual-use or arms-related information is available.

If the findings presented in the planned publication are so new that they cannot (yet) be included in one of the relevant control lists, it should nevertheless be examined whether the findings are suitable to be made available to an unlimited group of persons, taking into account any potential for misuse.

### Case 7: Exports under public sector programmes

The EU is initiating a programme to create a globally accessible database of scientific data from EU-funded research institutions. Scientists from a German institution would like to enter their data into this database.

*The inclusion of the data in the database constitutes an export subject to licence if the data are listed in one of the pertinent control lists and are neither already in the public domain nor part of basic scientific research. The fact that the database has its origins in an EU programme is irrelevant for the existence of a licensing requirement.*

## 2.5 Technical assistance

In science and research, the restrictions of Sections 49 et seq. AWV[1] on the provision of so-called technical assistance must be observed in addition to the restrictions on the export and intra-EU transfer of items. The provisions may apply, for example, in connection with research cooperation or in cooperation with foreign visiting students and doctoral students.

**NB**

A visa does not release the holder or the visited institution from the licensing requirements under foreign trade law.

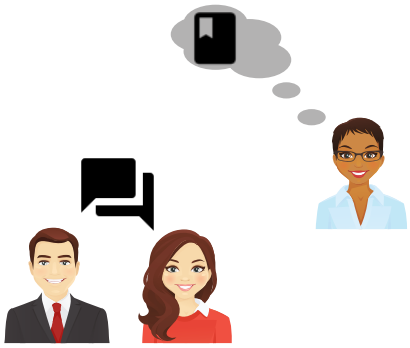
The provision of technical assistance abroad must be distinguished from the export or intra-EU transfer of technology:

- The export or intra-EU transfer of technology means the cross-border transfer of embodied technology. The technology, but not the form of transfer, must be embodied. Therefore, an export or intra-EU transfer exists even if technology is sent abroad in an email.
- Technical assistance on the other hand means the forwarding of unembodied knowledge, i. e. primarily the verbal dissemination of information.

**Distinguishing between export and intra-EU transfer of technology and technical assistance**

Export:

Technical assistance:



**NB**

In addition to the general provisions in Sections 49 et seq. AWV, there may also be special embargo provisions on the provision of technical assistance. These must be given priority and may also apply to technical assistance provided in Germany.

[1] It is currently being discussed at EU level whether to incorporate provisions on technical assistance in the new Dual-Use Regulation.

**Information on embargos:**

Information leaflet Exportkontrolle und das BAFA (Export control and BAFA)

Information leaflet Foreign trade with embargo countries

Information leaflet on foreign trade traffic with the Russian Federation

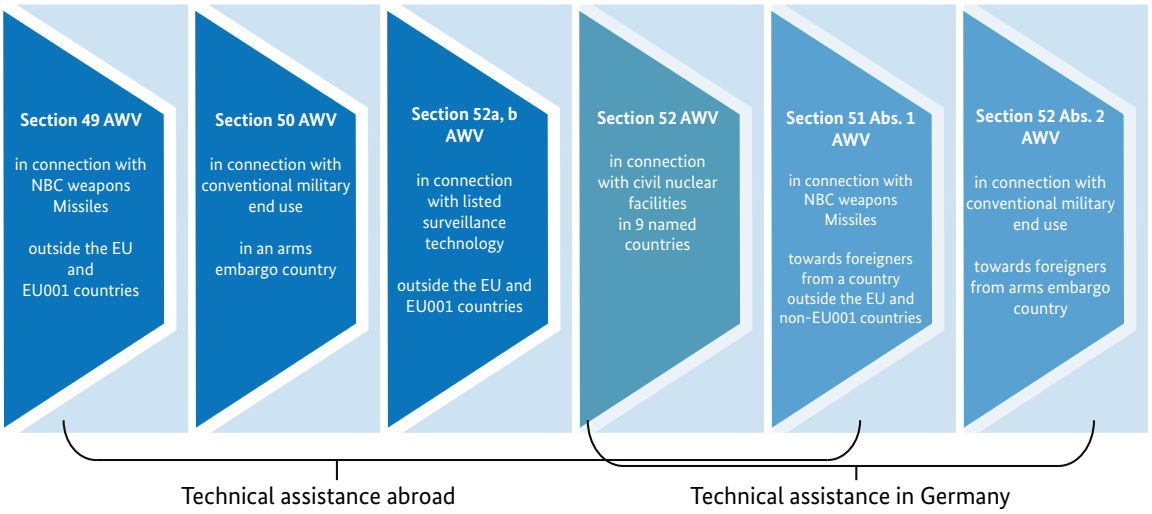
Information leaflet on the developments of the Iran embargo

Consolidated List of Sanctions: https://eeas.europa.eu/topics/sanctions-policy/8442/consolidated-list-of%20sanctions.en

EU Sanctions Map: https://sanctionsmap.eu/#/main

### 2.5.1 Licensing requirements for technical assistance

The following overviews show the general licensing requirements in connection with technical assistance, distinguishing between technical assistance abroad and in Germany. Prohibitions and licensing requirements under embargo law which must always be examined with priority are not presented.




### 2.5.2 Definition of technical assistance

The term of technical assistance is defined in Section 2 (16) AWG. Accordingly, technical assistance is any technical support related to the repair, development, manufacture, assembly, testing, maintenance or any other technical service. It may take the form of verbal instruction, training, passing-on of technical knowledge and skills or advisory services, including, by telephone or electronic means.
According to this definition, the instruction of a colleague at a research institute can constitute technical assistance.

**NB**

Lectures and presentations at specialist conferences do not generally contain information that is subject to export control. This is because the information passed on verbally must meet the requirements of a control-list number. However, the requirements of the control-list numbers are generally very specific and so high that they are usually not met by verbal explanations in lectures and presentations. In addition, lectures and presentations based on information in the public domain or information that is part of basic scientific research are not covered by export control.

### 2.5.3 Reference framework for technical assistance

Licensing requirements for technical assistance do not exist to the same extent as for the export and intra-EU transfer of items. A licensing requirement can only exist from the outset if the activity is related to the following uses or items:

- Chemical, biological or nuclear weapons or missiles for these weapons,
- Military end use in an arms embargo country (country within the meaning of Article 4 (2) of Regulation (EC) 428/2009)
- Facilities for (civilian) nuclear purposes in Algeria, Iraq, Iran, Israel, Jordan, Libya, the Democratic People's Republic of Korea, Pakistan or Syria,
- Certain communication surveillance items listed in Annex I of the EC Dual-Use Regulation and Part I Section B of the Export List.

**Further information on arms embargo countries within the meaning of Art. 4 (2) of the EC Dual-Use Regulation:**

**Module 1:** Licensing requirements and prohibitions

For a licensing requirement to exist, it is furthermore necessary for the provider of technical assistance to have been notified about the existence of any such reference by BAFA. If there has (as yet) been no notification by BAFA, but the provider of technical assistance has knowledge himself that the technical assistance is intended for one of the uses or items mentioned, he must notify BAFA of such. The latter will then decide on the licensing requirement.

### 2.5.4 Knowledge of the sensitive context of use

There is an obligation to notify BAFA if the exporter is aware of the sensitive use of the items (see 2.5.3). The mere consider possible is not sufficient.

However, awareness also exists if the exporter has sufficient information sources from which he can obtain knowledge in a reasonable manner and without any particular effort. If the use is civilian or if there is only the possibility of sensitive use, this will not be sufficient to constitute an offence. The laws do not impose any duties on the exporter to make inquiries but it must be ensured within the context of external export control that the employees entrusted with export processing and monitoring are given all relevant information and are in a position to evaluate such. The exporter may also not deliberately ignore obvious indications. Therefore, if for example one the following factors exist, an arms reference is generally to be assumed. Relevant factors can be for example: clear nature of the items, the intended use stated by the customer or otherwise obvious purpose, performance guarantees of a clearly weapons-related or arms-production-related nature, planning projects with a clear reference to an arms-production-related use, other indications with which the exporter is informed of the weapons-related use, previous arms-production-related use of the same type by the same consignee.

If the exporter is a natural person (e. g. a scientist), he himself must possess the knowledge. By contrast, if the exporter is a legal person, knowledge is to be affirmed on the one hand if the relevant knowledge is available to the authorised representatives and on the other hand the knowledge of its employees is to be attributed to the legal person (see Section 166 German Civil Code – BGB).

If the so-called outside knowledge, i. e. the information brought in from outside, has arrived/is available in the company or research institution, it is to be considered as the knowledge of the exporter.

**Case law on the subject of knowledge**

- The characteristic of known is only satisfied with positive knowledge, which is to be understood under criminal law in the sense of a direct intention. The mere consider possible is not sufficient so that contingent wilful intent or even negligent ignorance did not justify the obligation to inform. (BGHSt 55, 94-107)
- However, knowledge also exists if the exporter is aware of sufficient sources of information from which he can gain knowledge in a reasonable manner and without any particular effort. The exporter may also not deliberately ignore obvious indications.
  (VG FFM 23.06.96 – 1 E 1366/93 and 14.03.96 – 1 E 1772/93)
- If a provision links a positive knowledge of certain circumstances with legal consequences, such knowledge may be deemed to be known if the person concerned deliberately closes himself off from it and deliberately ignores an obvious opportunity to avail himself of the knowledge as any other person would have done in his situation. (BVerwG 5 C 26.12 (5 C 17.11))
- Knowledge can also be affirmed from a conclusion that conspiratorial conduct can be explained solely as circumventing export control regulations: The conspiratorial conduct of the accused leads to the conclusion that he was aware of the unlawfulness of his exports. (BGH StB 27/09)

### 2.5.5 Place of technical assistance

The location of technical assistance is also decisive in the question of whether a licensing requirement exists. Sections 49 et seq. AWV set out the licensing requirements for technical assistance abroad and in Germany.

For the purposes of examining the geographical scope of the regulations, it is also necessary to consider their derogations. Technical assistance that requires licence only in third countries, is always exempt from licensing requirement also in the so-called EU001 countries (see Section 49 (1), (3) AWV). The so-called EU001 countries currently include Australia, Japan, Canada, New Zealand, Norway, Switzerland, Liechtenstein and the USA. They are referred to as EU001 countries because they are favoured by the General Export Authorisation EU001 regulated in Annex IIa to the EC Dual-Use Regulation.

The licensing requirement regulated in Section 52 AWV is basically independent of location. It therefore also applies, for example, in the case of relevant technical assistance in Germany.

Depending on the location of the technical assistance (e. g. the research visit), a licensing requirement must therefore be considered with respect to the following context of use:

| Place of technical assistance | Context of use |
|---|---|
| **Germany** | · NBC weapons, aircraft carriers<br>· Military end use in arms embargo country<br>· Civil nuclear facilities in Algeria, Iraq, Israel, Jordan, Libya Democratic People's Republic of Korea, Pakistan or Syria |
| **EU Member State or EU001 country** | · Civil nuclear facilities in Algeria, Iraq, Israel, Jordan, Libya, Democratic People's Republic of Korea, Pakistan or Syria |

| | |
|---|---|
| **Third Country** (apart from EU001 Country) | · NBC weapons, aircraft carriers<br>· Civil nuclear facilities in Algeria, Iraq, Israel, Jordan, Libya, Democratic People's Republic of Korea, Pakistan or Syria<br>· Listed items of communication surveillance |
| **Particularly in arms embargo country** | · Military end use |

### 2.5.6 Addressees of the technical assistance

The addressee of the technical assistance only plays a role for provisions whose scope is limited to the domestic territory. These are the provisions laid down in Section 51 AWV. Section 51 AWV links the licensing requirement for technical assistance with the fact that it is provided to a foreigner from a non-EU Member State and non-EU001 country (subsection 1) or to a foreigner from an arms embargo country (subsections 2 and 3).

Foreigners in this sense are not all persons with a foreign nationality. Rather, foreigners are those persons who do not have their place of residence or habitual abode in Germany or whose place of residence or habitual abode in Germany is limited to 5 years (Section 2 (5) in conjunction with (15) AWG, Section 51 (5) AWV).

**Example:**

A is an Indian citizen and has been in Germany since 2010. A first studied in Germany and is now looking for a job at an institute of the university.

*It is to be assumed that A has his place of residence and habitual abode in Germany in the sense of his centre of life. If his residence permit is not limited to 5 years, A would be viewed as a German resident in accordance with Section 2 (5) in conjunction with (15) AWG. The conditions of Section 51 AWV would thus not be met.*

### 2.5.7 Exceptional provisions

There are no restrictions to technical assistance provided through the dissemination of information in the public domain and information forming part of basic scientific research.

This may be derived from the de-control notes regulated at the end of the licensing requirements (see, for example, Section 51 (4) No. 1 AWV).

**Further information on the exceptions (de-control notes):**

**Module 3:** The exceptions for technology: in the public domain and basic scientific research

### 2.5.8 Cooperation with foreign visiting reseachers

In order to assess whether cooperation with foreign visiting reseachers can lead to technical assistance subject to licence, the following list of questions should be answered as far as possible.

**Questionnaire**

- How long is the planned research visit to last? Which qualifications does the applicant have?
- From which country is the applicant?
- From which institution (university etc.) does the applicant come? Is the applicant or the sending institution listed?
- What is the abstract objective of the research visit? Diploma thesis, doctorate, postdoctoral stay, habilitation or similar? Are the results of the work/research to be published?
- What is the precise technical task?
- In which department and, if applicable, in which research project is the work to be carried out involved?
- Who can provide more detailed information on the scientific aspects as a specialist contact person?
- Has the applicant already produced scientific publications?
- Is the applicant to have access to knowledge, processes, technologies that are not in the public domain? If this is the case, please specify.
- Is this basic or applied research?

  If applied research:

  - To the best of your knowledge, where can the expected research results be applied in principle?
  - To the best of your knowledge and judgement, are there possibilities of military use or application for the erection or operation of civilian nuclear facilities with respect to these research results? If so, which?

    A possible military use explicitly includes possible uses in the field of nuclear, biological and chemical weapons and their delivery systems for their proliferation (including the associated technology).

**Practical tips: Foreign visiting reseachers**

**- Empirical report of the Fraunhofer-Gesellschaft -**

**Circumstances:**

A Frauenhofer Institute is looking for a new employee. The job description includes the occupation with software which deals with the implementation of camera data and video streams. As part of the recruitment process, candidate B emerges as the ideal candidate for the vacant position. Candidate B is an Egyptian citizen.

**Basic approach:**

First of all, it should be clarified that technical assistance subject to licence may also occur in the course of employing a foreign employee.

This is due to the fact that sensitive technologies may be made available to employees so that they can carry out their work properly. Consequently, in any such constellation, the relevant provisions of foreign trade law must always be observed and their compliance guaranteed. The obligation to comply with the relevant provisions has prompted the Fraunhofer-Gesellschaft to introduce the following procedure for hiring or retaining foreign employees as a mandatory preliminary consideration for employment:

If the hiring of a foreign candidate is sought, the responsible person at the Institute screens the candidate with the assistance of a suitable computer programme to determine whether that personal embargo (also known as a financial sanction) has been imposed on a specific person. Reference is made in this respect to a sanction list check.

Where screening shows that the person is on a so-called sanction list, this is immediately forwarded to the export control officer at the Institute and the foreign trade law team of the central legal department. The latter will then carry out a final examination of this issue, if necessary in consultation with BAFA, and immediately inform the Institute of the result. If the above screening result does not stand up to legal examination, the candidate should not be employed.

The recruitment process will continue if the candidate cannot be found on any of the sanction lists. The next step is to focus on the candidate's nationality (or more precisely, his/her place of residence or habitual abode). It must then be clarified whether there is a so-called country-specific embargo against the country of origin.

In the case of a country-specific embargo, this is also immediately forwarded to the export control officer at the Institute and the foreign trade law team of the central legal department. At this point too, an in-depth legal examination may be required, where applicable in consultation with BAFA, as well as notification of the result to the Institute.

If the candidate's country of origin is subject to a country-specific embargo, an in-depth legal examination will be required. If no country-specific embargo is apparent, it must still be checked whether the activity involves technical assistance of the candidate. If this is the case, legal assistance should be sought once more. In all other respects, the candidate can be hired in principle. It can therefore be concluded that if all of these questions can be answered with a no, the hiring of the foreign candidate will be basically safe from the perspective of export control law.

**Specific solution for the above constellation:**

In the case of the Egyptian candidate, who is to be given access to software that enables the implementation of camera data and video streams, it must be assumed that on the one hand the technology and software are listed and are therefore relevant under foreign trade law and, on the other hand, a so-called sanction list check does not reveal any personal embargos. A country-related embargo is also not evident. However, it should be noted at this point that the activities of the potential employee must comply with the provisions of Sections 49 et seq. AWV and therefore a reservation of authorisation exists. Domestic technical assistance from a national only requires licence, however, if the national has knowledge or has been informed by BAFA that the technical assistance is related to (1) civil nuclear facilities in the countries specified in Section 9 AWV or (2) there is a link with NBC weapons and the technical assistance is provided to a foreigner from a non-EU and non-EU001 country or (3) there is a link with a military end use and technical assistance is provided to a foreigner resident in an arms embargo country. In a comparable situation, BAFA was therefore to be contacted, thereby pursuing a purely formalistic approach in this respect. As there is no link to NBC weapons or civil nuclear facilities and no arms embargo against Egypt, there is a lack of (cumulative) conditions for an licence requirement. Consequently, from the point of view of foreign trade law, there are no objections to the recruitment of the candidate.

**Further information on technical assistance:**

Information leaflet Technology Transfer and Non-Proliferation (Technology transfer and non-proliferation)

HADDEX: Part 8, Chapter 2 (German)

## 2.6 Consideration of case no. 8

**Case 8: Visiting researchers**

A post-doctoral researcher from Pakistan would like to conduct a research project on radar systems at a German university.

Variants:

a) He is an Indian student.

b) An Iranian citizen residing permanently in Canada would like to conduct research at an institute in Germany for his doctor thesis in the field of valves and pumps. For this purpose, he will stay in Germany for one year. He holds a visa from the German embassy in Ottawa.

*This could be technical assistance requiring licence pursuant to Section 51 (1) AWV. The requirements placed on the addressee are satisfied; the researcher is a foreigner who is not resident in an EU Member State or EU001 country (Section 51 (1) No. 2 AWV). Accordingly, BAFA must be contacted if the researcher comes into contact with technology that can also be used, for example, for missiles of NBC weapons.*

*a) The information provided to a student will usually not be of the same quality as the information provided to a post-doctoral researcher. In the current constellation therefore, it must be carefully examined whether the information with which the student comes into contact is not in the public domain. If this is the case, there will be no licensing requirement (Section 51 (4) No. 1 AWV).*

*b) Based on Regulation (EC) No. 267/2012 (Iran Embargo Regulation) and the general provisions in Sections 49 et seq. AWV, it must be checked whether there is any forbidden technical assistance or technical assistance subject to licence.*

1. ***Iran Embargo Regulation***
   *In a first step, the prohibitions and licensing requirements of the Iran Embargo Regulation must be examined. The prohibitions and licensing requierements of the Iran Embargo Regulation presuppose that the technical assistance (technical aid) is provided to an Iranian person or for use in Iran.*

   *The doctoral student is not an Iranian person within the meaning of the Iran Embargo Regulation. A natural person is to be viewed as an Iranian person if he/she has his/her place of residence or habitual abode in Iran (Art. 1 lit. o) of the Regulation). These requirements are not satisfied by the doctoral student, who resides in Canada.*

   *The condition of for use in Iran could, for example, be affirmed if the doctoral student intends to return to Iran in the near future; however, there are no indications of this in the present case. Technical assistance which is prohibited or subject to licence under the Iran Embargo Regulation is therefore ruled out.*

   *Further information:*
   Information leaflet on the developments of the Iran embargo

2. ***Sections 49 AWV***
*There is also no technical assistance subject to licence pursuant to Sections 49 AWV.*

*Since the doctoral student is conducting research at an institute in Germany, only the licensing requirements set out in Sections 51, 52 AWV come into consideration. However, a licensing requirement according to these provisions is already ruled out because of the lack of a context of use. With respect to Section 51 AWV, it should also be noted that the doctoral student is not to be assigned to the group of addressees covered by Section 51 AWV:*

*Section 51 (1) AWV presupposes that technical assistance is provided to a foreigner who is neither resident in a EU Member State nor in an EU001 country. These requirements are not met by the doctoral student, who resides in Canada, i. e. in a EU001 country.*

*Section 52 (2) AWV applies only if the technical assistance is provided to a foreigner resident in an arms embargo country. This is also not the case with the doctoral student. Although he is a citizen of an arms embargo country, he is not a resident of that country. The doctoral student resides in Canada.*

**Practical tips: Dealing with visiting scientists**

- Helmholtz Zentrum Berlin für Materialien und Energie GmbH -

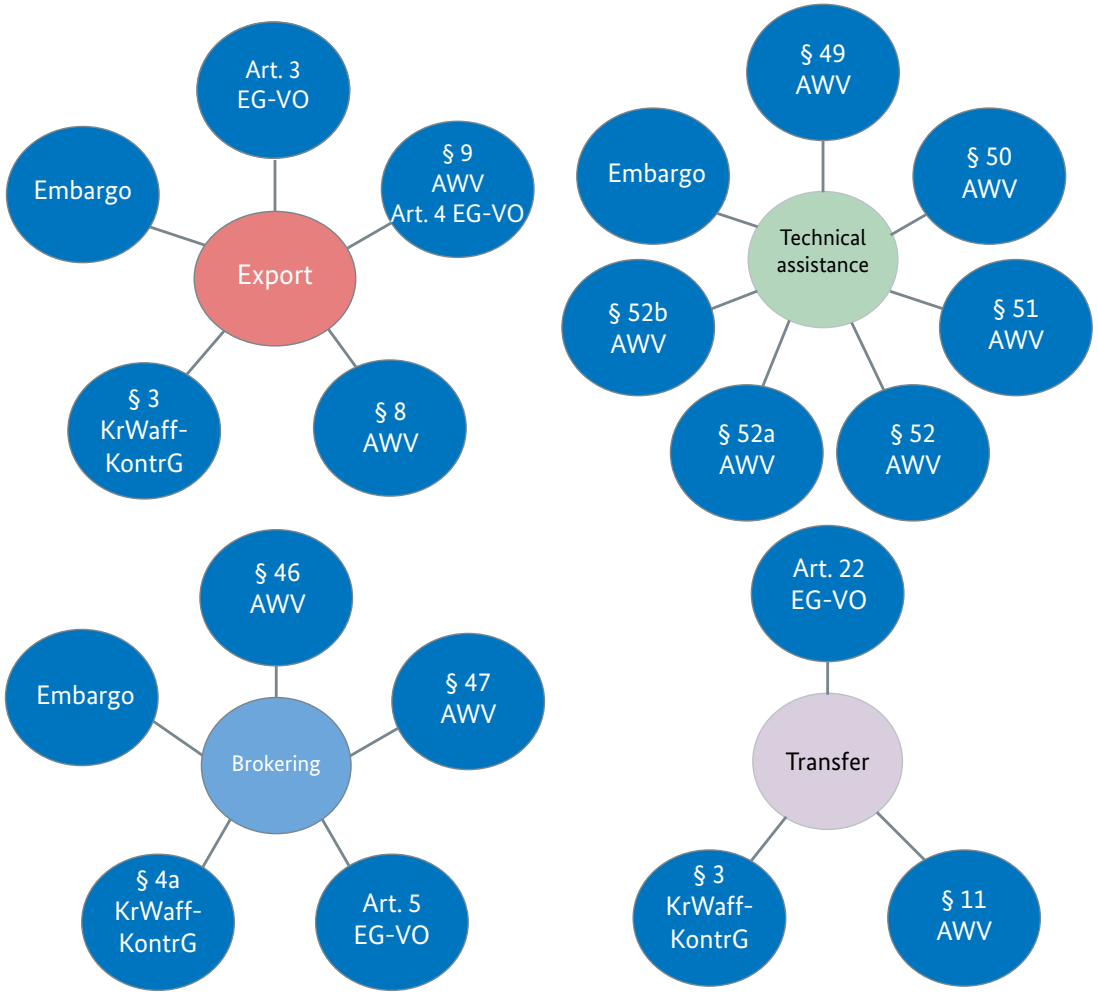
Approx. 3,000 external scientists from 35 countries use the two large-scale facilities and the laboratory infrastructure at the HZB each year. In addition to many guests from other EU countries, many guests from outside Europe also conduct research at the HZB. In order to gain access to the HZB infrastructures, an application is submitted with the scientific project and evaluated by a committee consisting of external scientists. The application for and allocation of times of use is made electronically.

In recent years, aspects of export control have also increasingly been included in the process. For example, the question is asked whether the research serves purely peaceful purposes since otherwise the scientific project will be rejected for this reason alone. This information will be checked at a later stage by a committee composed of HZB employees. Furthermore, all persons involved in the project must be stated with nationality, sending institution etc. This query enables the persons to be checked on the basis of the sanction lists or on the basis of certain prohibitions or licensing requirements or embargos under national and European export control law.

A frequent example refers to guests with a nationality of an embargo country who are studying at a German or European university. There are often cases where the guests have studied and/or worked at a listed institution or where the curriculum vitae shows that the degree has been gained in a particular subject. Under consideration of the scientific project, it is examined in depth whether the guest at the HZB could learn skills that could fall under the application of an embargo regulation. It is necessary here, in addition to the concept of residency, to check whether certain grounds for exclusion exist or whether any other inquiry should be made to BAFA.

## 2.7 Overview of the relevant licensing requirements

The following diagram shows the above mentioned provisions that stipulate licensing requirements. Provisions with regard to brokering transactions are also listed.




## 2.8 Eligibility for licence

The eligibility of projects for licence depends on who (exporter) delivers what (item) where (country of destination) and to whom (consignee/end user) for what purpose (end use). The following criteria[2] are taken into consideration amongst others:

- International obligations contrary to the granting of licences
- Respect for human rights and international humanitarian law by the country of final destination
- Tensions and armed conflicts in the country of final destination
- Objective of preservation peace, security and stability in the region
- National security of the EU Member States and friendly and allied countries

[2] The Council Common Position 2008/944/CFSP of 8 December 2008 defining common rules governing control of exports of military technology and equipment must also be taken into account when deciding on the granting of licences with respect to dual-use items (Art. 12 (1) Lit. c) EC Dual-Use Regulation. References to military technology and military equipment (armaments) must therefore be interpreted accordingly

- Behaviour of the buyer country with regard to the international community under special consideration of its attitude to terrorism, the nature of the alliances and respect for international law

- Risk of diversion of military technology or military equipment in the buyer country or re-export of military equipment under undesirable conditions

- Compatibility of exports of military technology or military equipment with the technical and economic capacity of the recipient country, taking into account the desirability that states should meet recipient their legitimate security and defence needs with the least diversion of human and economic resources for armaments

The majority of foreign cooperations of German universities and research institutes can therefore be authorised, if they are at all subject to licence after self-assessment. A rejection is usually only made if critical items are to be delivered to a critical consignee/end user.

**NB**

A licensing requirement is not equivalent to a prohibition of the export.

## 2.9 Prohibited actions

The above described actions can also be prohibited in individual cases, i. e. strictly prohibited.

### 2.9.1 Prohibitions on support under the War Weapons Control Act (KrWaffKontrG)

The handling of nuclear, biological and chemical weapons is prohibited in Sections 17 and 18 of the War Weapons Control Act. It is firstly prohibited to develop and manufacture these weapons among other things. In addition, it is also prohibited to (only) support the development or manufacture of these weapons. Any even indirect act of support which is the cause of the development and manufacture of weapons is prohibited. Therefore, the dissemination of knowledge in science and research through publications, lectures or academic cooperation is also subject to the prohibition on support if it is the cause of a later third party act regarding nuclear, biological or chemical weapons.

**NB**

The prohibiting of support only applies to nuclear weapons which are not under the control of a NATO state or which are not developed or manufactured on behalf of any such state (Section 16 KrWaffKontrG). By contrast, the ban is comprehensive for biological and chemical weapons.

### 2.9.2 Embargo prohibitions

Prohibitions may also result from embargo measures.

Embargos with respect to military items (so-called arms embargos[3]) are regulated nationally in Sections 74 et seq. AWV. The sale, export and transit of military items (items of Part I Section A of the Export List) as well as trafficking and brokering transactions in the arms embargo countries listed therein are prohibited.

[3] With respect to existing arms embargos, see: Runderlass Außenwirtschaft Nr. 1/2018 Ausfuhr; existing arms embargos of the Federal Ministry of Economics and Energy of 15 January 2018.

Other embargo measures have been implemented in EU regulations. These may relate, for example, to the sale, supply, forwarding or export of certain items (e. g. dual-use items, items for purposes of internal repression or luxury items) and to the provision of technical assistance or brokering activities. Technical assistance related to military equipment is also regulated in the respective embargo ordinances and not in the AWV.

Financial sanctions may also be imposed. These stipulate among other things that no funds or assets of any kind (economic resources) may be made available, directly or indirectly, to certain persons, organisations and institutions. The term economic resources describes assets of every kind, whether tangible or intangible, movable or immovable, which are not funds but may be used to acquire monies, goods or services.

**Further Information:**

Information leaflet Exportkontrolle und das BAFA (Export Control and BAFA)

Information leaflet Foreign Trade with Embargo Countries

Information leaflet on foreign trade traffic with the Russian Federation

Information leaflet on the development of the Iran embargo

Consolidated List of Sanctions: https://eeas.europa.eu/topics/sanctions-policy/8442/consolidated-list-of%20sanctions.en

EU Sanctions Map: https://sanctionsmap.eu/#/main

## 2.10 Red Flags

Governmental export controls may only be effective with the active support of industry and science. Universities and research institutions – as well as companies – must therefore have a watchful eye as to suspicions that (unintentional) involvement in a proliferation project is imminent. Such suspicions may arise among other things from the person making the request or his/her conduct.

**NB**

The red flags presented in 2.10.1 and 2.10.2 are to be supplemented where necessary on the basis of the experience of the research institute or university.

### 2.10.1 Suspicions substantiated by the person of the inquirer

Inquiries or orders for the delivery of items or the provision of technical assistance services as well as applications or requests to participate in specific events should be subject to close scrutiny if the person making the request gives cause to suspect possible misuse of technical knowledge.

**Example:**

Such suspicions as to a non-civilian use may arise in particular in the case of inquiries and orders from the following (natural or legal) persons:

- Unknown persons whose identity remains unclear because, for example, the letterhead is incomplete or has been photocopied into the cover letter or who recognisably give evasive answers to questions about their identity or do not have convincing references
- Seemingly non-existent prospective (cooperation) parties, unknown to industrial associations or registration authorities, not listed in telephone or trade directories and not to be found on websites or other information sources
- Persons from the military sector, for example, those acting on behalf of a ministry of defence or the armed forces, or persons with known business contacts with the arms industry or nuclear facilities
- Persons including, for example, scientists, experts, research assistants or laboratory staff, who would not be expected to make such requests in the light of known activities and who provide no or insufficient or evasive justification for the requirement;
- Prospective (cooperation) parties,
  - who do not have the necessary equipment to process the items in question or the necessary expertise to use the service ordered;
  - who are not in a position to precisely formulate the product characteristics, expertise or training standards normally required for the contract;
  - whose business activities do not match the order or
- who are unable to provide plausible explanations about the whereabouts of products delivered or the status of processes already completed.

### 2.10.2 Suspicions substantiated by unusual behaviour

Furthermore, a detailed examination or risk analysis should be carried out in the event of suspicious behaviour, in particular regarding the initiation of business and the content of business transactions. This also applies to unusual friendly favours.

**Example:**

Examples of suspicious behaviour are:

**1. Order/inquiry**

- Participation of an intermediary or an external research institution;
- Instructions to alter essential production processes that make the manufacture of weapons of mass destruction, missiles or armaments possible or conceivable;
- Transfer of a foreign scientist (students, doctoral students etc.) to the research project without his/her previous activity having any connection with it;
- Lack of or insufficient explanation of the intended use and the need for the items or support services;

- The description of the items or support services ordered appears unnecessarily highly specified or the quantity and quality of the goods in question is considerably higher or lower than normal for the specified use without satisfactory explanation;
- No explanations or evasive answers to questions about the relevant business or technical aspects of the transaction or statements that indicate that the requester does not have the expertise normally available in such projects;
- Withholding information on the location where the technology or associated items are to be used or where the services are to be provided, or
- Indication of a security-restricted area as a destination, e. g. an area close to military installations or to which only a strictly limited number of persons have access.

**2. Business transactions/cooperation**

- Explanations by prospective (cooperation) partners give the impression that the projects refer to basic scientific research although this is not the case;
- Foreign delegations:
  - > The delegation is extended at short notice;
  - > Members of the delegation are not introduced, or
  - > Members move outside the group.
- Unusual and groundless splitting of the project into several parts or completion of a project started by a third party without a plausible explanation
- Conversely: the requester waives further supervision of the project and continuation of professional cooperation
- Waiving of expert assistance or training of staff which is typically required or at least in demand for such a project
- Unusually favourable terms of payment, e. g. excessive fee or advance payment in cash
- Request for upmost confidentiality with respect to the details of the content of services and the contract
- Exaggerated security measures or other measures indicating that the requester is evidently unfamiliar with the usual security requirements associated with the contract
- Packaging and handling arrangements that are not consistent with the declared purpose or destination of the technology, or
- Geographically or economically illogical statements about transport routes.

The existence of the above indicators should prompt the research institution or university or its representatives and staff to take a closer look at the intended cooperation and to obtain additional information. If necessary, the internal export control office and, where applicable, BAFA should be contacted.

**Further information:**

Brochure Proliferation – Wir haben Verantwortung (Proliferation – it's our responsibility) of the Federal Office for the Protection of the Constitution

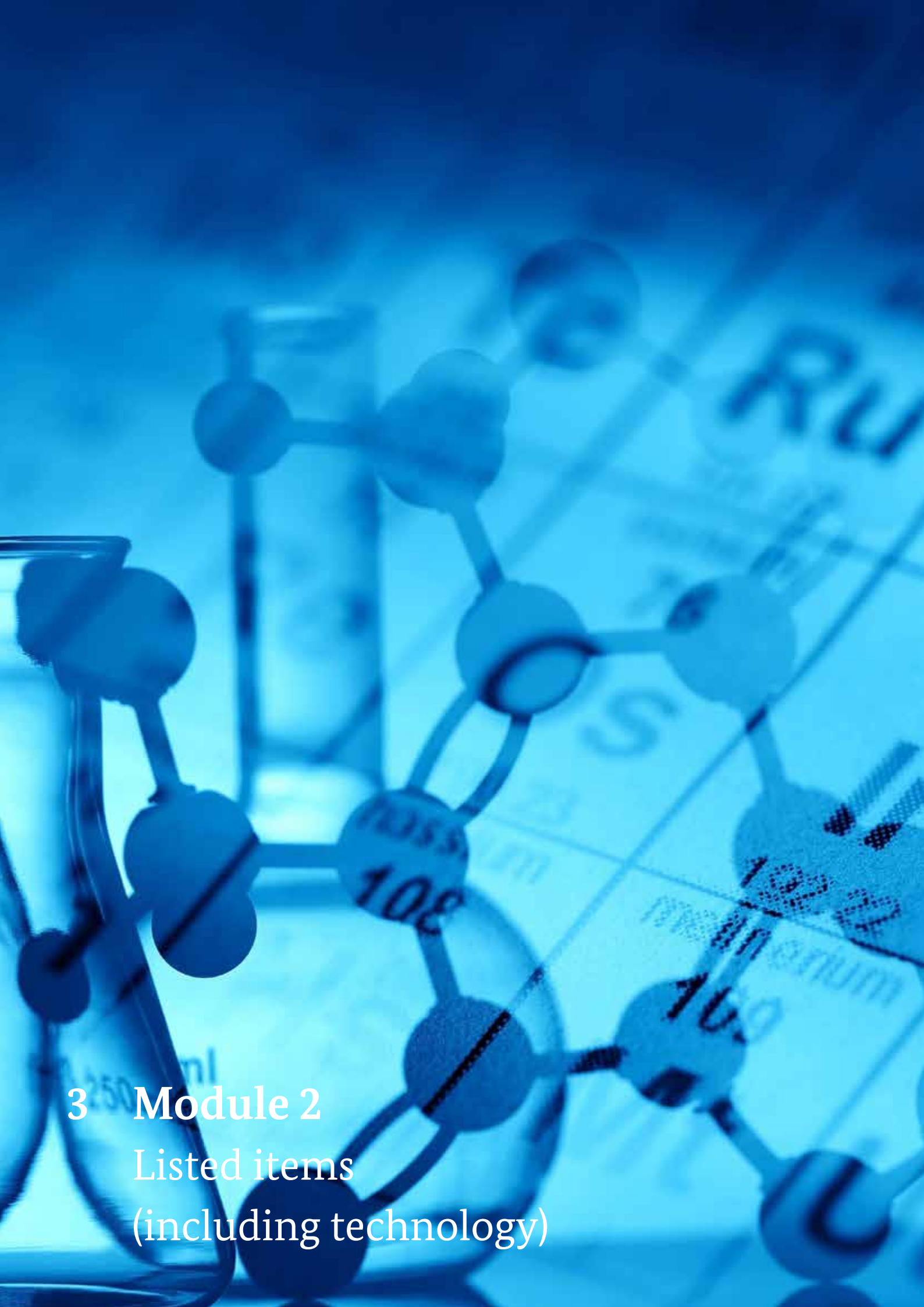
**Contacts**

**Division 211** (for general questions on licensing requirements and prohibitions)
General Policy and Procedural Issues

**Email:** academia@bafa.bund.de

**Telephone:** +49 (0)6196 908-0

**Division 221** (for information on suspicious patterns of behaviou)
Information Analysis, Reports



# 3 Module 2
## Listed items (including technology)

The prohibitions and licensing requirements described in Module 1 are predominantly linked to the export or intra-EU transfer of listed items.

The relevant control lists can be found in Annex I to Regulation (EC) No. 428/2009[1] (EC Dual-Use Regulation) and in the German Export List (EL):

- The majority of **dual-use items** are covered by Annex I to the EC Dual-Use Regulation.
- The Export List (EL) as an annex to the German Foreign Trade and Payments Ordinance (AWV) defines the scope of the national licensing requirements for **military items** (Part I Section A) and, in addition to the EC Dual-Use Regulation, also for **certain dual-use items** (Part I Section B).

The control lists are coordinated internationally in so-called export control regimes[2] and then transposed into national or European law (Exception: Part I Section B of the EL).

## 3.1 Non-binding guidance

Many areas of research and science are not affected by foreign trade law and its prohibitions and licensing requirements, including the areas of the humanities, economic and social sciences and human sciences. Consequently, there is usually no need to deal with the control lists in these areas.

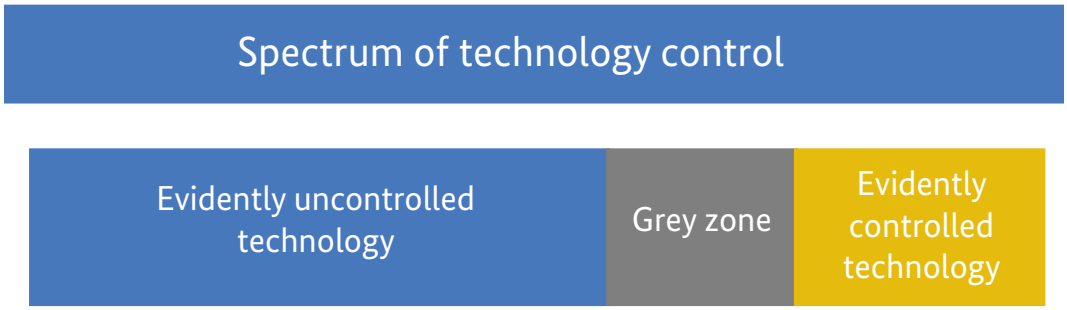
In other areas (e. g. the natural sciences), the following non-binding guidance is intended to support research and science in filtering out technology not covered by export control (this does not apply to goods and software!), without having to carry out a specific check of the individual numbers on the control lists. If the inclusion of the technology cannot be reliably ruled out with the help of the guidance, there will be no way around a detailed check of the numbers on the control lists. Assistance in dealing with the control lists s provided at the end of the guidance.

[1] The Annexes to the EC Dual-Use Regulation were last modified by the Delegated Regulation (EU) 2018/1922
[2] WA, MTCR, NSG, AG and CWC

## Non-binding guidance

## to determine uncontrolled technology

A large number of activities in the scientific field are not subject to export controls. This is firstly due to the fact that export controls only cover certain areas and secondly to the fact that it provides for exceptions for basic scientific research and information in the public domain. As in the diagram below, the majority of projects are not affected by export controls:




The focus of export controls and their exceptions for basic scientific research and information in the public domain make it tempting, without thorough examination of the individual list numbers, to assess the relevance of one's own research under export control law either only on the basis of the generic terms mentioned in the control lists (e. g. computer, materials, telecommunications) or by examining only the aforementioned exceptions.

Infact, such an approach may be appropriate in specific cases to develop a sense of the technology covered by export controls and to sort out technology that is obviously not covered by export controls.

**NB**

This guidance refers exclusively to the tansmission of technology. This is because the exceptions for basic scientific research and information in the public domain do not apply to goods and software.

However, this approach carries the risk of overlooking that one's own research is subject to export controls, leading to unauthorised exports or technical assistance. This is because the generic terms used in the control lists are often very broad. For example, the generic term Electronics also covers medical technology. It may also be difficult in individual cases to assess whether the technology relevant to export controls is in fact already in the public domain or part of basic scientific research. Examining the de-control notes requires great care and presupposes that the criteria relevant from the point of view of foreign trade law are known and correctly applied to the respective individual case. The latter is all the more difficult if it is not clear which part of the research is actually the relevant part under export control law.

If it cannot be reliably ruled out using the guidance that the technology is covered by the control lists, an in-depth check of the control list numbers must be carried out. Only then can it be checked whether the technology is covered by the aforementioned de-control notes.

**Further information on the classification of items**

Module 2, Section 3.2 (Overview of control lists and their application)

**1. Which university activities are generally not covered by export control? – Step 1**

**Usually not affected:**

- Projects without reference to the control lists (see Step 2)
- Content of lectures for bachelor, masters and diploma courses (final theses may be affected, however!)
- Basic scientific research (see Step 3)
- Already published research findings (see Step 4)

**Affected in the case of a reference to the control lists:**

- Supervision of student research projects and final theses
- Supervision of doctoral and post-doctoral students
- Passing-on of detailed and not yet published content

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**2. Is there a reference to the control lists? – Step 2**

**The items controlled by the control lists are as follows:**

- Military items (Part I Section A of the Export List)
- Dual-use items (Annex I to the EC Dual-Use Regulation and Part I Section B of the Export List)

Export control in the narrower sense is intended to counter the risks of the proliferation of weapons of mass destruction and their means of delivery as well as the destabilising accumulation of military items. Specific items related to these areas are mentioned in the control lists.

With a few simple control questions, you can already gain an indication of a possible links between your research area and the control lists.

**Control questions**

Are the research results relevant to the development, manufacture or use of?

- Are the following areas affected by the research?
  - Nuclear materials, facilities and equipment
    *(in particular nuclear reactors, gas centrifuges and isotope separation)*
  - Special materials and related equipment
    *(in particular reduction of signatures and toxic substances)*
  - Materials processing
    *(in particular high precision machine tools and measurement machines as well as furnaces)*
  - Electronics
    *(in particular radiation or temperature-resistant integrated circuits)*
  - Computer
    *(in particular high performance computers and radiation-resistant computers)*

- Telecommunications
  *(in particular interference and surveillance equipment and radio devices)*
- Information security
  *(in particular systems for information security and their weakening)*
- Sensors
  *(in particular sonar and radar systems and image amplification tubes)*
- Lasers
  *(in particular lasers and laser materials)*
- Avionics
  *(in particular angular or rotational accelerometers and gyros)*
- Navigation
  *(in particular inertial measuring devices and missile control systems)*
- Marine
  *(in particular submersible vehicles, external air independent drives)*
- Aerospace and propulsion
  *(in particular unmanned aircraft and gas turbine aircraft engines)*

**If you can answer all questions with NO, the project is most likely not to be subject to export control.**

**NB**
You should note, however, that the export of technology not mentioned in the control lists may also be subject to authorisation in individual cases if you have indications that the technology is intended for a sensitive use specified in Module 1.

**If you answered YES to one of the control questions, proceed to Step 3.**

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**3. If there is a reference to the control list: Is it basic scientific research? – Step 3**

Basic scientific research is not subject to export controls. Even if there is a reference to listed items, basic scientific research is exempted from export controls in the General Technology Note (GTN) to the control lists. The following control questions are intended to provide you with indications of this.

**Control questions**

- Is theoretical or experimental work involved?
- Are fundamental principles being researched?
- Is the research not directed towards a practical purpose or objective? For example, is there no specific application envisaged and is the development of a product not targeted (samples, prototypes and demonstrators)?
- Does the research take place without or not for industrial partners?
- Is the research financed without research funds from industry?
- Basic scientific research typically has a *Technology Readiness Level (TRL)* of 1-3. Is the level of technological readiness within this range?

**If you have answered YES to all control questions, what you are doing is most likely basic scientific research and no licence is required.**

**If you have answered one of the control questions with NO, proceed to Step 4.**

***Example:***
*The control lists control various technologies for the development and manufacture of combustion chambers and turbine blades (cooled/uncooled) for gas turbines. In this context, modelling the general processes of the combustion process, general flow simulations or materials investigations on the heat resistance of materials, coatings etc. is regarded as basic scientific research. An optimisation of the combustion chamber design on the basis of an existing combustion chamber would be considered as applied research and would therefore possibly require authorisation.*

**NB**
As a rule, research cooperation with industrial partners no longer involves basic scientific research, but applied research. In these cases, a statement as to whether the research is covered by the control lists should also be queried at the industrial partner involved since each exporting company must implement an export control system.

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**4. Where there is a reference to the control lists and research is NOT basic scientific research: To what extent is knowledge passed on? – Step 4**

Even if you may be affected by export controls because of your field of research, the extent to which knowledge is transferred will determine whether it falls within export controls. The requirements of the control list numbers are generally very specific and high. According to the General Technology Note, the technology must in particular be required.

**NB**
The following documents, for example, will generally not meet the requirements of the control list numbers:

- (Sales) brochures, catalogues and excerpts thereof, which in their respective form are intended or may be intended for an indefinite number of interested parties and which are made available to them without individual changes to the contents
- Photos (without detailed information on geometric sizes, materials used and electrical / electronic components)
- Exploded drawings / elevations without detailed dimensions
- Sectional views (schematic and without material and detailed data)
- External dimensions
- Specifications
- Project and management plans as well as logistics concepts
- Schematic diagrams, block diagrams, process diagrams (without detailed data)
- Technical performance data, key performance indicators
- Electrical and mechanical connection and consumption data
- Labelling characters
- Parts lists if no reference can be made to drawings
- Norms and standards that are generally available and not specific to a company product
- Articles from trade journals and comparable publications
- General process and procedure descriptions (in the case of plants)
- Delivery specifications (e. g. for chemicals and other auxiliary materials)

In addition, information that is already in the public domain is not subject to export control. An application for an authorisation need not therefore be made for every publication or participation or organising of symposia/congresses.

**Control questions**

- Are the findings not yet published (e. g. in trade journals or on freely accessible internet)?
- Does the technology have a certain significance?

**NB**

Technology must be of a certain significance and in particular be required in order to be relevant under export control law. In simplified terms, being required means that using this technology, the characteristics set out in the control lists are reached or even exceeded.

***Example of knowledge in the public domains:***

*High performance computers are mentioned in the control lists and are frequently used for complex simulations in research. The knowledge of how to operate a high performance computer is not subject to export control. It is typically known and therefore already in the public domain.*
*Cases in which a listed high performance computer is to be further developed or technically supervised by a foreign student in a computer centre may be subject to export control.*

***Example of required technology***

*Unmanned Aerial Vehicles (drones) are listed in the control lists. The following characteristics and functions among others are important to fall within export control: autonomous flight control or controlled flight out of the direct natural vision of the operator, endurance and range. Technology may be covered if it relates to one of these features. This can be the case, for example, if autonomous flight control is developed or optimised for a drone. However, if the technology is designed to enable drones to communicate and interact with agricultural machinery, then it is usually not required technology. Consequently, this technology would not be covered by the control lists.*

**If the technology is published comprehensively and thus generally accessible, the product will not be subject to a licensing requirement.**

**If the technology is only passed on in rudimentary form, the technology is not regarded as required (significance); here too, publication is not subject to export controls.**

**If you answered YES to the control questions, proceed to Step 5.**

**5. If there is a reference to the control lists, if the research is not basic scientific research and if the work has not been published comprehensively:**

This section is only a non-binding guidance. If the guidance could not rule out the technology being subject to export controls, the individual control list numbers must be examined.

## 3.2 Overview of control lists and their application

This section provides a brief introduction to the use of the control lists:

- How do I read a control list number (system)?
- What do the general notes and other notes mean?
- How do I use the index?

### 3.2.1 Numbering system in the control lists

**Numbering system**
**of the Annexes to the EC Dual-Use Regulation**

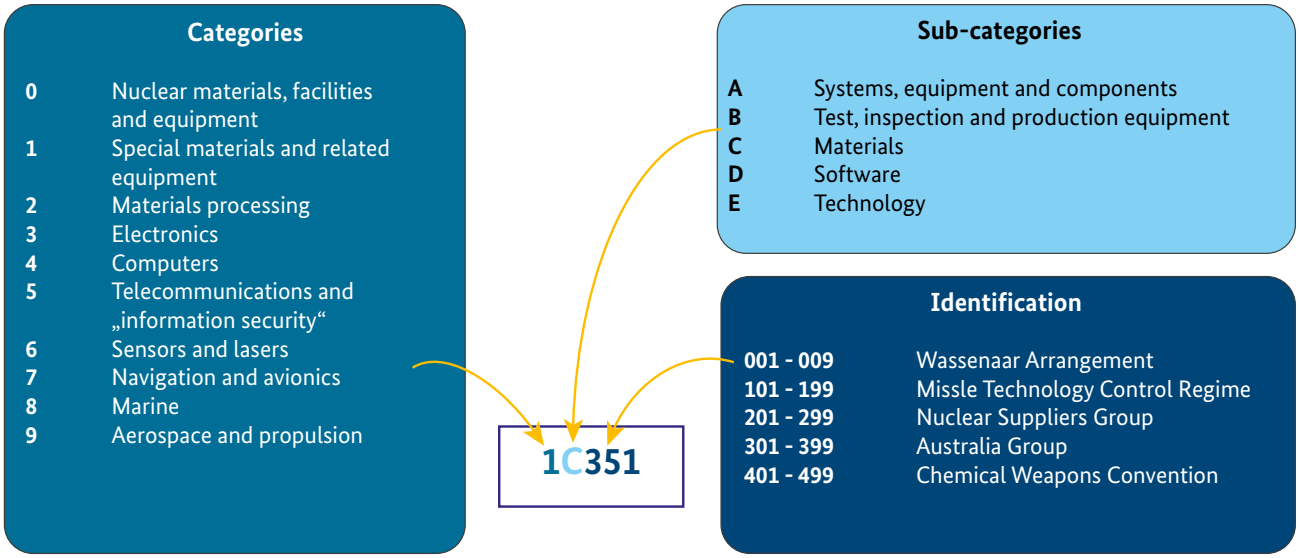
| | |
|---|---|
| 1 | The first digit is the category |
| A | The letter identifies the sub-category |
| 0 | The second digit identifies the regime from which the control arises |
| | 0 Wassenaar Arrangement |
| | 1 Missle Technology Control Regime |
| | 2 Nuclear Suppliers Group |
| | 3 Australia Group |
| | 4 Chemical Waepons Convention |
| | 5-8 Reserved |
| | 9 National registration number |

**Categories**

| | |
|---|---|
| Category 0 | Nuclear materials, facilities and equipment |
| Category 1 | Special materials and related equipment |
| Category 2 | Materials processing |
| Category 3 | Electronics |
| Category 4 | Computers |
| Category 5 | Telecommunications (Part 1) |
| | Information security (Part 2) |
| Category 6 | Sensors and lasers |
| Category 7 | Navigation and avionics |
| Category 8 | Marine |
| Category 9 | Aerospace and propulsion |

**Sub-categories**

| | |
|---|---|
| Sub-category A | Systems, equipment and components |
| Sub-category B | Test, inspection and production equipment |
| Sub-category C | Materials |
| Sub-category D | Software |
| Sub-category E | Technology |




**Numbering system**
**of Part I Section A of the Export List (military items)**

| | |
|---|---|
| 0001 | Small weapons and arms |
| 0002 | Weapons |
| 0003 | Ammunition |
| NEW: | in the case of 0001-0003, also check Annex I Firearms Regulation |
| 0004 | Bombs, torpedoes, rockets, missiles and explosive devices |
| 0005 | Fire control equipment |
| 0006 | Ground vehicles |
| 0007 | Chemical and biological agents, radioactive materials and CBRN protection |
| 0008 | Energetic materials |
| 0009 | Vessels and naval equipment |
| 0010 | Aircraft, aerials vehicles and aircraft equipment |
| 0011 | Electronic equipment and spacecraft |
| 0012 | High velocity kinetic energy weapon systems |
| 0013 | Armoured or protective equipment |
| 0014 | Military training and simulation equipment |
| 0015 | Imaging or countermeasure equipment |
| 0016 | Forgings, castings and unfinished products |
| 0017 | Miscellaneous equipment, materials and libraries |
| 0018 | Production equipment |
| 0019 | Directed energy weapons systems |
| 0020 | Cryogenic and superconductive equipment |
| 0021 | Software |
| 0022 | Technology |

## 3.3 Number structure and technical parameters

**Example:** Number 1C225 of Annex I to the EC Dual-Use Regulation

Boron, enriched in the boron-10 ($^{10}B$) isotope to greater than its natural isotopic abundance, as follows: elemental boron, compounds, mixtures containing boron, manufactures thereof, waste or scrap of any of the foregoing.

*Note: In 1C225 mixtures containing boron include boron loaded materials.*

*Technical Note: The natural isotopic abundance of boron-10 is approximately 18,5 weight per cent (20 atom per cent).*

### 3.3.1 Specificity of the control list numbers and their interpretation

The classification of items is based on objective technical criteria; the end use and end user may not play a role in the technical classification. Accordingly, it is irrelevant for the classification and therefore also for the existence of the licensing requirement whether the item is to be used exclusively for civilian purposes or whether a military use is intended. However, the end-use plays a role in the question of eligibility for licence.

### 3.3.2 Cumulative requirement for inclusion (AND, conjunction)

For a cumulative or AND operation, all parameters must be fulfilled. If a single parameter is not fulfilled, there will be no control. The AND operation starts with the phrase having all of the following characteristics; there is an and between the penultimate and last sub-item.

**Example:** Number 2B231 of Annex I to the EC Dual-Use Regulation

Vacuum pumps having all of the following characteristics:
a) Input throat size equal to or greater than 380 mm,
b) Pumping speed equal to or greater than 15 $m^3/s$ and
c) Capable of producing an ultimate vacuum better than 13 mPa.

*Technical notes:*
*1. The pumping speed is determined at the measurement point with nitrogen gas or air.*
*2. The ultimate vacuum is determined at the input of the pump with the input of the pump blocked off.*

### 3.3.3 Alternative requirement for inclusion (OR, disjunction)

In the case of an alternative or OR operation, the fulfilment of one of the specified parameters is sufficient for control. The OR operation is started with the phrase of any of the following; there is an or between the penultimate and the last sub-item.

**Example:** Number 3C001 of Annex I to the EC Dual-Use Regulation

Hetero-epitaxial materials consisting of a substrate having stacked epitaxially grown multiple layers of any of the following:
a) Silicon (Si),
b) Germanium (Ge),
c) Silicon carbide (SiC) or
d) III/V compounds of gallium or indium.

*Note:*
*3C001.d. does not control a substrate having one or more P-type epitaxial layers of GaN, InGaN, AlGaN, InAlN, InAlGaN, GaP, GaAs, AlGaAs, InP, InGaP, AlInP or InGaAlP, independent of the sequence of the elements, except if the P-type epitaxial layer is between N-type layers.*

### 3.3.4 Final enumeration in sub-numbers

The formulation as follows at the end of the main sentence finally concludes the description of the elements included. The item must meet the technical parameters exactly. In this example, the chemicals must be those with the corresponding CAS numbers (CAS-Chemical Abstract Service); a similar chemical with a different CAS number is not covered.

**Example:** Number 1C350 of Annex I to the EC Dual-Use Regulation

Chemicals, which may be used as precursors for toxic chemical agents, as follows, and chemical mixtures containing one or more thereof:

*NB:*
*SEE ALSO MILITARY GOODS CONTROLS AND 1C450.*

*1. Thiodiglycol (111-48-8);*
*2. Phosphorus oxychloride (10025-87-3);*
*3. Dimethyl methylphosphonate (756-79-6);*
...
*64. Diethylamine (109-89-7).*
...

### 3.3.5 Remarks in the control list numbers

In some examples, notes are used on the exact determination of the control list numbers. A distinction is made between the following:

- (Technical) Notes to further clarify the area of inclusion
- Decontrol notes, directly regulating (constitutive) instructions
- Explanatory (declaratory) notes, e. g. indication of different parts of the EC Dual-Use Regulation
- Exemplarily included items which are initiated with the formulation includes

A common feature of all notes is that they are part of the list text and describe the control list number. They are not illustrative or exemplary additions.

### 3.3.6 General Technology Note

The General Technology Note (GTN) is to be found in both the EC Dual-Use Regulation and the Export List. The EC Dual-Use Regulation also contains a Nuclear Technology Note (NTN).

The notes regulate the following:

- Basic scientific research, information in the public domain and information for patent application (exception: nuclear technology) are not covered by the control lists.
- Technology for the development and manufacture of dual-use items of Category 1-9 is only controlled if it is required.
- The potential of the technology is decisive. Technology remains under control even if it is applicable for an unlisted item in the specific case but could also be used to develop or produce a listed item.
- Difference between NTN and GTN: Technology of the Category 0 (Nuclear reactors, enrichment, re-processing of nuclear fuels etc.) is controlled according to the NTN irrespective of whether it is required or not.

### 3.3.7 Index

The Joint Index to the EC Dual-Use Regulation and Part I of the Export List is provided on the BAFA website.

The Joint Index is not part of the EC Dual-Use Regulation or the Export List. It is intended to provide practical assistance to users but is not legally binding. Therefore, any incompleteness or inaccuracy does not justify failure to apply for a necessary export licence.

**Example from the field of process engineering / turbine construction:**

| **Search word** | **Index** |
|---|---|
| Vacuum pump | 0B002f: Vacuum systems and pumps...<br>2B231: Vacuum pumps...<br>2B233: ...scroll-type vacuum pumps...<br>2B350i: ...vacuum pumps... |
| Vacuum condenser | No entry |
| Rotor blade or guide blade | No entry |
| Turbine blades | 9E003a: Technology [...] for the development or production of any of the following gas turbine components or systems |

→ The above mentioned examples show that any synonyms must be checked and searched selectively in corresponding categories.

### 3.3.8 Information on the items lists

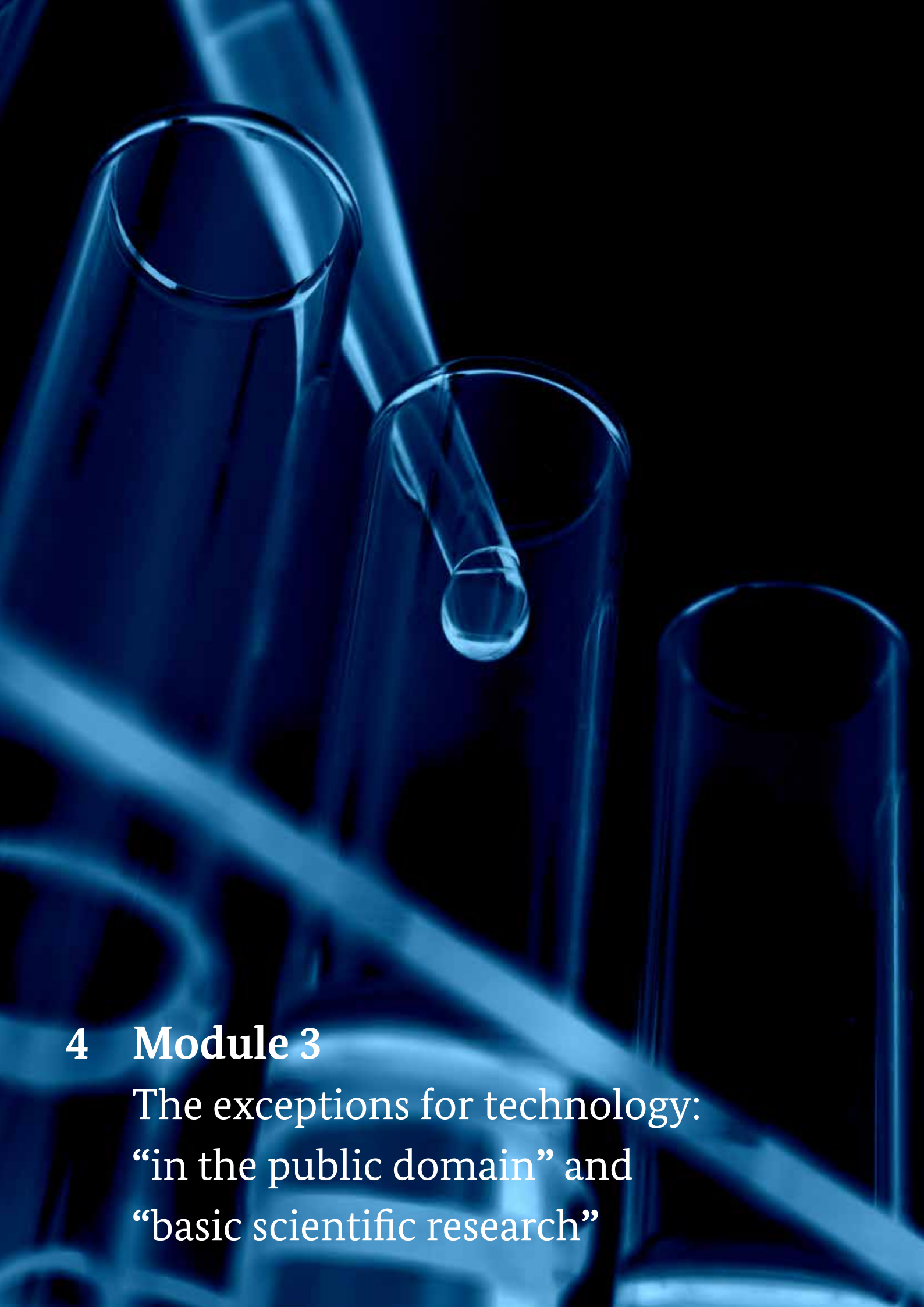
If the exporter cannot determine by means of an independent examination whether the item to be exported or transferred is covered by one of the control lists, he has the option of submitting an application to BAFA for information on the control list. This is an item-related technical expert opinion. It provides information that the items described in the technical expert opinion are not covered by Annex I to the EC Dual-Use Regulation or Part I of the Export List to the AWV (in the respective version valid at the time of issue). The control lists in the Anti-Torture Regulation and the Firearms Regulation are also included in the examination. By contrast, embargo regulations are not taken into account.

**NB**

Before a technical expert opinion is applied for, an independent examination must be made. The application must also be restricted to goods which have a proximity to Annex I to the EC Dual-Use Regulation or Part I of the Export List or for which a customs authority has expressly requested a technical expert opinion.

**Further information on the technical expert opinion:**

http://www.bafa.de/azg



# 4 Module 3

## The exceptions for technology: “in the public domain” and “basic scientific research”

The exceptions, so-called de-control notes, exclude technology that is basic scientific research or is in the public domain from the licensing requirements under export control law. Information required for patent applications is also excluded (with the exception of nuclear technology).

**NB**

The de-control notes apply only to technology. Goods (e. g. prototypes and equipment) are not included!

The de-control notes are regulated in the General Technology Notes (GTN) and in the Nuclear Technology Note (NTN) to the EC Dual-Use Regulation as well as to the Export List and also constitute an exception to the licensing requirements for technical assistance.

The terms in the public domain and basic scientific research are defined as follows in the definitions of the EC Dual-Use Regulation:

- **In the public domain:** means technology or software which has been made available without restrictions upon its further dissemination (copyright restrictions do not remove technology or software from being in the public domain).

- **Basic scientific research:** Experimental or theoretical work undertaken principally to acquire new knowledge of the fundamental principles of phenomena or observable facts, not primarily directed towards a specific practical aim or objective.

Both terms originate from the international export control regimes and are broadly defined on purpose in order to apply to the wide range of technology (Categories 0 to 9) in Annex I and the Export List.

## 4.1 In the public domain

Information in the public domain is exempted from inclusion in the control lists in the preliminary remarks to Annex I to the EC Dual-Use Regulation and Export List.

Exceptions therefore exist with regard to the control of technology as well as explicitly with regard to the technical assistance included in Sections 49 et seq. AWV which relate to technologies that are in the public domain.

### 4.1.1 When is technology/software considered to be in the public domain?

According to a decision of the Federal Constitutional Court (BVerfGE 27, 71 ff.), an information source is in the public domain if it is *technically suitable and intended to provide information to the general public.*

Actual or legal restrictions without relevance under export control law, i. e. those that are not based on the sensitivity of an item, do not change the quality of in the public domain with respect to an item or technology. These can be restrictions under public law with their own objective, such as a provision for the protection of minors, or a restriction under private law such as a licensing agreement between business partners. The fact that access to information is subject to a fee does not prevent it being in the public domain. Information that can only be retrieved after prior registration is also in the public domain as long as anyone can in principle register under the above mentioned conditions. Copyright restrictions also do not prevent an item or technology being in the public domain.

The quality of being in the public domain is particularly relevant in the context of publications in scientific journals. Scientific articles in professional journals may only be aimed at a small group of experts with specialist knowledge but are nevertheless in the public domain. The decisive aspect is whether the possibility of information being in the public domain exists. Whether and how frequently the knowledge is actually accessed is not decisive. Knowledge is also in the public domain through the publication of patents (disclosure document).

**Information in the public domain is therefore inter alia:**

- *Publications such as books, magazines, newspapers available in shops and public libraries*
- *Information that can be purchased or ordered without restriction in shops, by email, electronically or by telephone*
- *Information that can be freely viewed online without prior registration*
- *Information provided at open conferences, seminars, trade fairs and exhibitions*
- *Information published by the Patent Office*
- *Information on general scientific principles commonly taught in schools and universities*
- *Dissertations and diploma theses if they have been published in the context of the usual regulations in specialist libraries in the public domain*

### 4.1.2 When is technology/software NOT considered to be in the public domain?

Information is **not** in the public domain if it is available to only a restricted group of persons. This includes information that is only made accessible after an individual decision has been taken by the information carrier. In this case, not everyone has the possibility to access the information.

It should also be considered that information is only in the public domain once it has been published. It is BAFA's established administrative practice to consider first time publications of research results subject to Annex I to the EC Dual-Use Regulation as exports because the research results are not yet in the public domain at the time of publication and the exception from the GTN does not apply. This may not apply to purely print publications in Germany.

Sensitive knowledge that has not yet been published but where the publication is merely intended is not (yet) in the public domain; its dissemination is therefore subject to licence. Publication at a later date does nothing to alter this as the time of disclosure is decisive.

**NB**

The statements on the terms of basic scientific research and in the public domain in the judgement of the Rechtbank Noord-Holland in Haarlem, Netherlands of 20 September 2013, Ref.: AWB 13/792, http://deeplink.rechtspraak.nl/uitspraak?id=ECLI:NL:RBNHO:2013:8527 are also interesting in this context.

The case concerned the export of two technical documents concerning the genetic material of the H5N1 virus and its mutability. The court found the terms basic scientific research and in the public domain should be interpreted narrowly as exceptions to the generally comprehensive licensing requirement against the background of the objective of combatting proliferation. Furthermore, it was not basic scientific research if the technology had practical uses with regard to proliferation or if such uses were not excluded.

Even if technology is developed from sources and methods that are in the public domain, this does not mean that the developed technology is automatically also in the public domain. The decisive factor was whether new findings – not yet in the public domain – are obtained. Ultimately, the court concluded in the specific case that the documents contained all information necessary to produce and disseminate a weapons grade virus.

## 4.2 Basic scientific research

The exemption of basic scientific research from export licensing requirements is rooted in the freedom of the sciences afforded by the Basic Law (Art. 5 (3) GG). Research is excluded from the exemption that is directed at a specific purpose and reveals a specific application. This starting point for exemption with reference to the Basic Law is reflected in Art. 13 of the Basic Rights Charter of the European Union.

Basic scientific research is defined as follows in the definition of terms to Annex I to the EC Dual-Use Regulation and in the Export List (Annex AL to the AWV): Experimental or theoretical work undertaken principally to acquire new knowledge of the fundamental principles of phenomena or observable facts, not primarily directed towards a specific practical aim or objective.

However, this does not include the entire area of research and teaching but only the general basic area. In particular, all information from specialist and text books is not covered by export control. Basic scientific research in the general understanding of science is purely knowledge-oriented or knowledge-driven research, and is related to fundamental questions and problems of a discipline. In this respect, not everything that is referred to as basic scientific research is really basic scientific research but applied research. In order to invoke a pure interest in knowledge, a recognisable relevance to the fundamentals, a specific promise of fundamental breakthroughs, regardless of whether these are then actually successful or not, must be added.

### 4.2.1 Distinction – where does basic scientific research stop and where does experimental and applied research start?

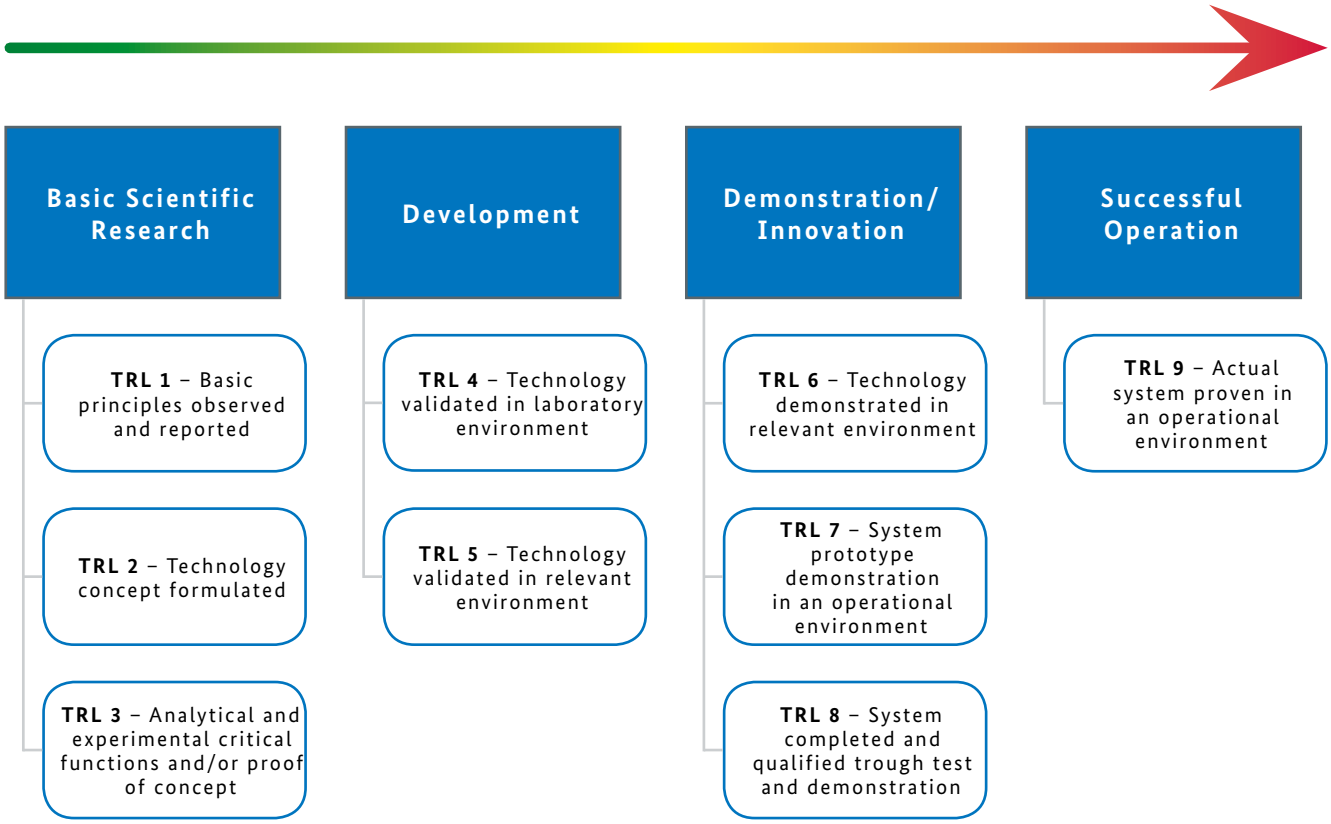
Experimental and theoretical work that serves exclusively to increase knowledge usually represents basic scientific research. In the same way as information on general scientific principles that is usually taught in schools and universities.

Experimental and applied research can be located in the field of basic scientific research as long as it is a matter of feasibility studies as well as finding fundamental solution or process paths.

By contrast, work that can be clearly assigned to the area of development – towards finished products – no longer falls within the area of basic scientific research.

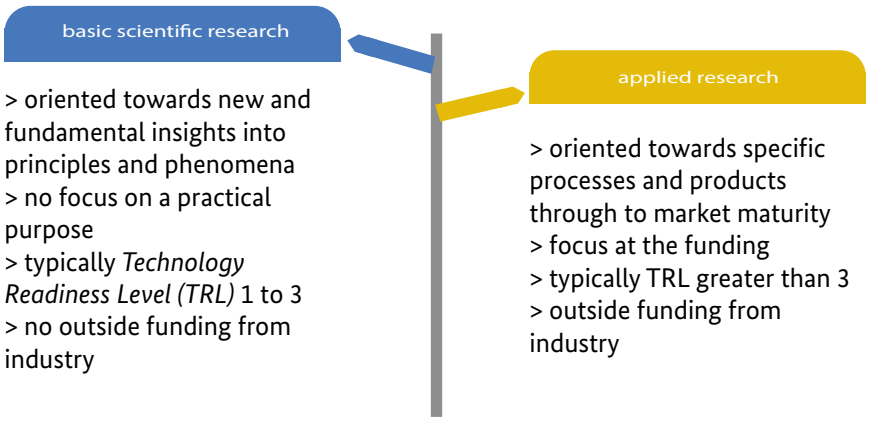
### 4.2.2 Technology Readiness Level (TRL)

Many intermediate steps are necessary from basic scientific research to exploitation and application in the market. One approach for a possible solution to the demarcation question when so-called basic scientific research can no longer be affirmed is offered by the so-called Technology Readiness Level (TRL). This Technology Readiness Level was originally a term coined in avionics (for software: Software Technology Readiness Levels). It is a scale to evaluate the development status of new technologies based on a systematic analysis. The TRL was developed in 1998 by NASA for the assessment of space technologies, and has since become the standard in other areas of future technologies.



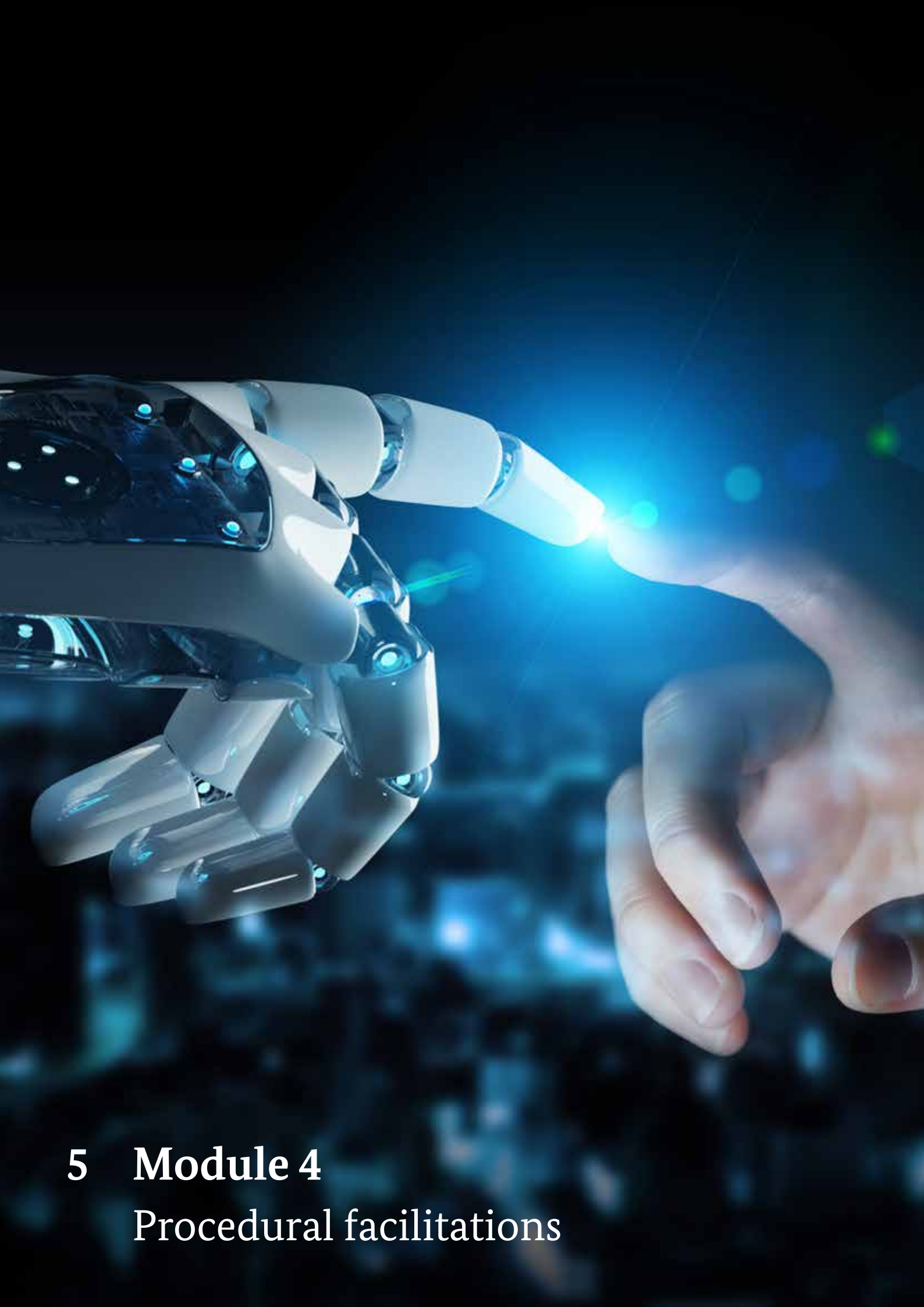

*The demarcation between basic scientific research and applied research is not always easy and also not uniform in different fields of study.*
*The following outline provides guidance;*

**Indicators for the assessment of the type of research**




**NB**

As a rule, research cooperation with industrial partners is no longer basic scientific research but applied research. A statement about a possible relationship between items/technology with the Export List should be requested from the industrial partner involved in these cases because each exporting company must have implemented an export control system in its business processes.



# 5 Module 4
## Procedural facilitations

If there is a licensing requirement, the exporter or transferor must check which type of authorisation can be used. There are essentially three types of authorisation:

1. **Individual export licence**
2. **Global export licence**
3. **General export authorisation**

**Individual export licence**

- 1 exporter
- 1 export
  (part deliveries also possible)
- 1 consignee
  (+1 end user where applicable)
- Application necessary

**Global export licence**

- 1 exporter
- x exports
- x consignees
  (+ x end users)
- Application necessary

**General export authorisation**

- 1 exporter
- x exports
- x consignees
  (+ x end users where applicable)
- No application necessary

## 5.1 Individual export licences

An individual licence approves one specific export or intra-EU transfer process.

**Further information:**

Information leaflet Exportkontrolle und das BAFA (Export Control and BAFA)

Information leaflet Optimierte Antragstellung (Optimised application)

HADDEX: Part 6 (German)

## 5.2 Global export licences

With a global export licence, a large number of exports and/or intra-EU transfers can be approved to different consignees and end users in different countries for a specified total value or quantity.

In the field of research, global export authorisations come into question particularly for larger cooperation projects in which a large number of also different items are to be exported or transferred to several consignees/end users over a longer period of time. The consignees/end users may be located in different countries

**Example:**

The German research institute A is involved in an EU research project. The conducting of the research project requires the dispatch of items of Annex IV of the EC Dual-Use Regulation to other participating research institutes in the EU. Since consignees/end users are to be supplied in different countries, it makes sense for the German research institute to apply for a global export authorisation. This provides the research institute with planning certainty since it is not necessary to apply for an individual export licences for each transfer.

**Further information:**

Information leaflet Sammelgenehmigungen für Dual-Use-Güter (Global export licences for dual-use items)

Information leaflet Sammelgenehmigungen für Rüstungsgüter (Global export licences for military items)

HADDEX: Part 7, Chapter 6 (German)

**Contacts**

**Division 223**
Internal Compliance Programmes, Global Licences

**Email:** SAG.dual-use@bafa.bund.de (Dual-use items)
or SAG.ruestung@bafa.bund.de (Military items)

## 5.3 General export authorisations

General export authorisations (GEA) are publically announced administrative acts in the form of general decrees. Exporters or transferors wishing to make use of a general export authorisation must register once for the respective general export authorisation. Registration is carried out via an online portal of BAFA, the ELAN-K2 export portal. General export authorisations have the advantage that no authorisation applications need to be filed; exports and intra-EU transfers that satisfy the requirements of a general export authorisation are automatically authorised. The scope of application of the general export authorisation is primarily determined by the authorised group of items and the authorised destinations. Sometimes, only certain case groups are generally authorised (e. g. re-export after repair, temporary exports/transfers). All general export authorisations also specify constellations in which a use is ruled out as well as procedural requirements (registration duties, reporting duties etc.).

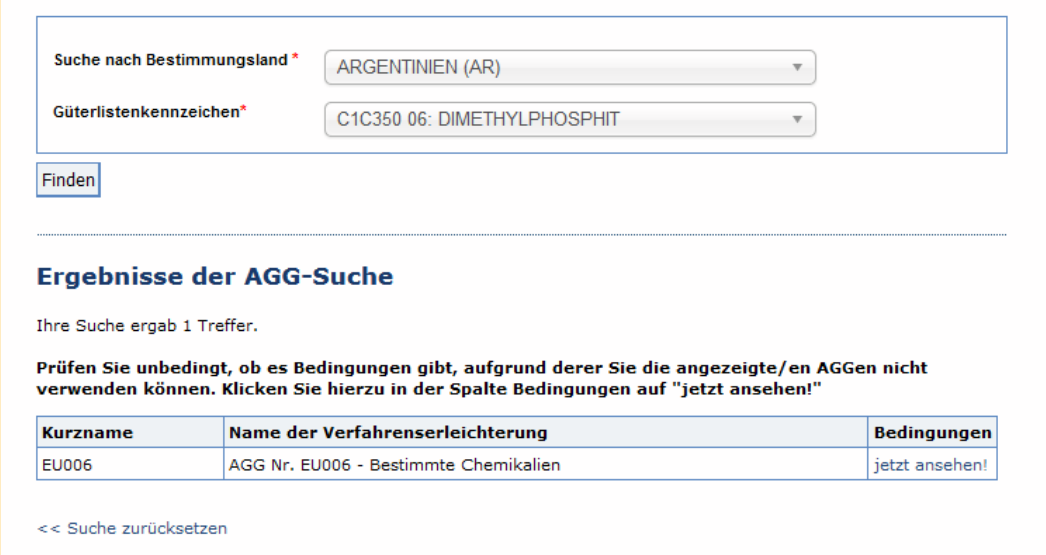
The exporter or transferor is responsible for checking whether conditions of a general export authorisation are satisfied because an application procedure in which BAFA examines the process does not take place.

### GEA Finder

The GEA Finder available on the BAFA website provides guidance in determining which general export authorisation can be used. The GEA Finder displays those general export authorisations that can be potentially used after entering the item (list item) as well as the country of destination. It should be noted, however, that the national general export authorisazions No. 13 and No. 25 are not included in the results of the AGG Finder due to the large number of the case groups included.

**Example:**

Researcher A wishes to export dimethyl phosphite of number 1C350 of Annex I to the EC Dual-Use Regulation to Argentina.




For exports and intra-EU transfers of dual-use items in the field of research, the following general export authorisations in particular may be of relevance:

- **EU001:** Exports to Australia, Japan, Canada, New Zealand, Norway, Switzerland, Liechtenstein or the USA.
- **EU006:** Exports of certain chemicals to Argentina, Iceland, Croatia, South Korea, Turkey, Ukraine.
- **AGG 13:** Exports attributable to one of the named case groups.

**Further information:**

AGG Finder: https://elan1.bafa.bund.de/bafa-portal/agg-finder/

Information leaflet Merkblatt zu Allgemeinen Genehmigungen und den diesbezüglichen Registrier- und Meldeverfahren Teil I-III (Information leaflet on general export authorisations and the pertinent registration and report procedures Part I-III)

HADDEX: Part 7, Chapter 5 (German)

## 5.4 General export authorisation EU001

| | |
|---|---|
| **Circumstance** | Export of items listed in Annex I to certain countries |
| **Group of items** | Annex I, apart from Annex IIg |
| **Destination countries** | Australia, Japan, Canada, New Zealand, Norway, Switzerland, Liechtenstein, USA* |
| **Requirements** | None |
| **Conditions** | • Registration<br>• Reporting of first time use<br>• No use within the meaning of Art. 4 EC Dual-Use Regulation<br>• No deliveries to free customs zones or free warehouses |

EU001 is a general export authorisation of the EU. Compared with the national general export authorisations, and with other general export authorisations of the EU, the EU001 is to be used as a priority. It permits the delivery of items listed in Annex I of the EC Dual-Use Regulation, with the exception of those listed in Annex IIg of the Regulation, to the following countries Australia, Japan, Canada, New Zealand, Norway, Switzerland, Liechtenstein and the USA. The EU001 applies if one of these countries is the destination of the items. This requirement is not met if the exporter is aware that the items will not remain in the country of destination but will be delivered on to a country not covered by the EU001.

**Example: Publication**

Researcher A would like to publish an article in an American journal. The article contains technology covered by Annex I to the EC Dual-Use Regulation and will also be available outside the USA after its publication.

Researcher A cannot use the EU001 to send the article to the American publisher. The USA is one of the countries of destination authorised in the EU001 but it does not apply if the exporter is aware that the item will not remain in the EU001 country to which it is exported. This is the case here. The article will be available worldwide, as A is aware.

## 5.5 General export authorisation EU006

| | |
|---|---|
| **Circumstance** | Export of specific chemicals listed in Annex I |
| **Group of items** | Specific chemicals of the numbers 1C350, 1C450a, 1C450b of Annex I to the EC Dual-Use Regulation |
| **Destination countries** | Argentina, Iceland, Croatia, South Korea, Turkey, Ukraine |
| **Requirements** | None |
| **Conditions** | • Registration<br>• Reporting of first time use<br>• No use within the meaning of Art. 4 EC Dual-Use Regulation<br>• No export as part of military goods<br>• No deliveries to free customs zones or free warehouses |

The EU006 is also a general export authorisation of the EU. The EU006 permits the delivery of different chemicals of the numbers 1C350, 1C450a, 1C450b to Argentina, Iceland, Croatia, South Korea, Turkey, Ukraine.

* In the event of a hard Brexit, it is intended to extend the EU001 to include the United Kingdom

Once again, the EU006 can only be used for an export if the exporter has no knowledge that the items are to be forwarded to a non-EU006 country (exception: re-shipment to a EU001 country or an EU Member State).

## 5.6 General export authorisation no. 13

| | |
|---|---|
| **Circumstance** | Export of items listed in Annex I to the EC Dual-Use Regulation |
| **Group of items** | Items listed in Annex I to the EC Dual-Use Regulation, apart from those listed in Section II, number 4 of the general export authorisation |
| **Destination countries** | In principle all countries with the exception of arms embargo countries within the meaning of Art. 4 (2) EC Dual-Use Regulation as well as Egypt, Afghanistan, Yemen, Pakistan, Syria, Thailand, Ukraine, Uzbekistan; narrower group of countries for Item 4.16c and 4.18 |
| **Requirements** | Depending on case group |
| **Conditions** | • Registration<br>• Documentation duty<br>• No use within the meaning of Art. 4 EC Dual-Use Regulation<br>• In principle no use for nuclear or military purposes or for purposes of the delivery technology (incl. rocket construction)<br>• No deliveries to free customs zones or free warehouses<br>• No criminal act pursuant to Sections 19 or 20 of the War Weapons Control Act<br>• No use in connection with infringements of human rights, the principles of democracy or freedom of opinion |

The general export authorisation No. 13 applies to the export of items listed in Annex I of the EC Dual-Use Regulation with the exception of the items listed in Section II, number 4 of the general export authorisation in certain case groups. It does not apply if a general export authorisation of the EU is pertinent.

In the field of research, the following case groups of the general export authorisation No. 13 may be of relevance:

**Number 4.16 lit. b)**

Number 4.16 covers the export of technology, which was previously introduced to the EU and is exported again to the exporting country in an unaltered form. Entries which neither alone nor in connection with documents for re-export permit a use which goes beyond the possibility of use existing prior to the supplement do not constitute a modification that precludes use of the general export authorisation No. 13.

This case group may become relevant, for example, in connection with publications that are sent to a German researcher or scientist for the purpose of correction/review

**Number 4.18**

Number 4.18 authorises exports to the Exclusive Economic Zones (EEZ) of the European Union and Australia, Japan, Canada, New Zealand, Norway, Switzerland (including Liechtenstein) and the USA.

**Number 4.19**

Number 4.19 covers exports of items intended for use or consumption during trips for marine and polar research. The case group applies to foundations under public law and registered associations for the pursuit of non-profit purposes within the meaning of the Tax-privileged purposes section of the tax code provided that federal or state ministries of the Federal Republic of Germany are represented in the foundation or registered association and the items are not made available to third parties for their own research purposes.

**Number 4.8**

The case group regulated in number 4.8 can be used by research institutes, which are authorities of the Federal Republic of Germany. Number 4.8 covers exports by authorities in performance of official duties or for their own official use, storage or repair.

It is important in this context, however, that the term 'authority' on which the general export authorisation is based does not agree with the definition of authority in Section 1 VwVfG. BAFA only recognises institutions as authorities whose legal entities also steer export control issues.

**Example: Exports by research institutes, which are public authorities**

Research institute B, an authority of the Federal Republic of Germany, would like to send samples covered by Annex I of the EC Dual-Use Regulation to a partner institute in Chile within the framework of a joint research project.

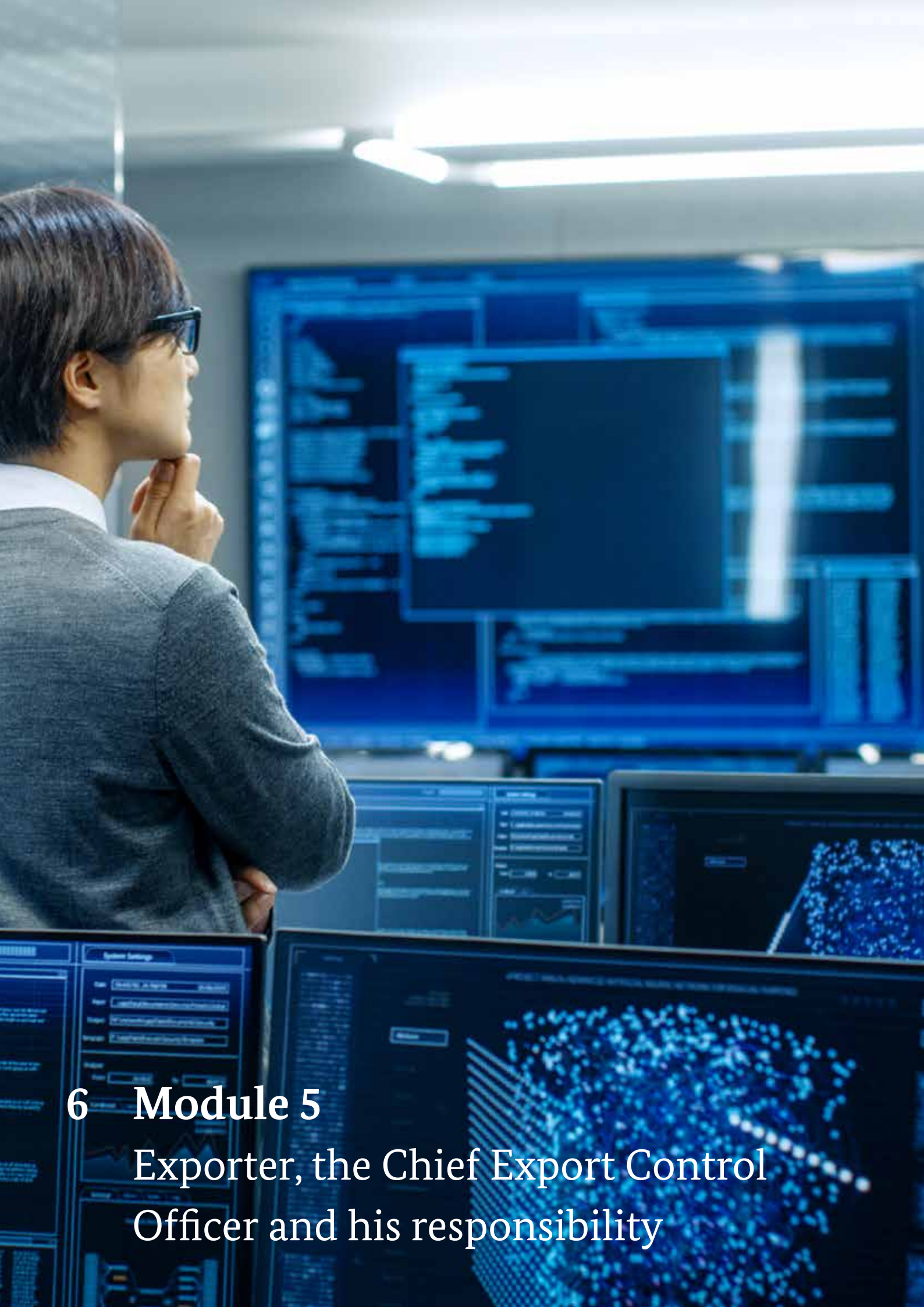
Research institute B may use the general export authorisation No. 13 for the export if the samples do not belong to the group of items excluded from the scope of application of the general export authorisation.

**Contacts on the various forms of authorisation**

**Division 221**
General Policy and Procedural Issues

**Email:** academia@bafa.bund.de or
Allgemeine_Genehmigungen_211@bafa.bund.de

**Telephone:** +49 (0)6196 908-0



# 6 Module 5

## Exporter, the Chief Export Control Officer and his responsibility

## 6.1 Exporter

It is the exporters' responsibility to obtain a licence. The term of exporter is defined in Art. 2 No. 3 of the EC Dual-Use Regulation and in Section 2 No. 3 AWV. Accordingly, the exporter is in principle the natural or legal entity who is the contractual partner of the consignee in the third country and has the power to determining the sending or transmission of the items from the customs territory of the EU or from Germany.

## 6.2 Chief Export Control Officer

In a large organisation, such as a university or a research institute, it is not only individuals who act. Who is then responsible for an export? In other words, who is the Chief Export Control Officer (CECO) who is required to submit an application to BAFA and bears the legal responsibility?

In the case of export projects involving listed items, it is generally necessary to notify BAFA in writing of a CECO. The CECO is personally responsible for compliance with the export control regulations.

He must take all staffing and procedural precautions to ensure that the foreign trade regulations are complied with. He is responsible for organising and monitoring the Internal Compliance Programme (ICP), and for selecting staff and their further training.

**Further information (also on liability):**

**Module 6:** Internal Compliance Programme

The guiding principle that **export control is a management issue** applies to the appointment of the CECO. He must be a member of the governing body authorised to represent the company, i. e. of management. Power of procuration is not enough.

The position of the CECO is basically regulated in the Federal Government's Principles for Evaluating the Reliability of Exporters of War Weapons and Arms-related Products of 15 July 2001. Companies wishing to export war weapons, military equipment or dual-use items must therefore appoint a CECO.

The CECO is the personal contact for the reliability check in organisational procedures (Section 8 (2) AWG) by the licensing authority.

**Further information:**

Information leaflet Internal Compliance Programmes - ICP

### 6.2.1 The Chief Export Control Officer in the academic world

While the appointment of the CECO in implementation of the principle that export control is a management issue is generally not a major challenge for industry because the hierarchies are clearly regulated in Germany on the basis of company law requirements alone, this can be more complex in the academic world.

Research institutions and universities are often less centrally organised or, due to special provisions under civil-service law, do not have the authority to issue instructions at the highest level.

This administrative apparatus - which has evolved over time in some cases – often has a decentralised structure and means that the principle of export control is a management issue cannot be implemented as directly as in companies.

If the management has no operational influence on any expert projects or technology transfers, the rigid implementation of the principle would contradict the sense and purpose of the basic rule due to the lack of binding instructions.

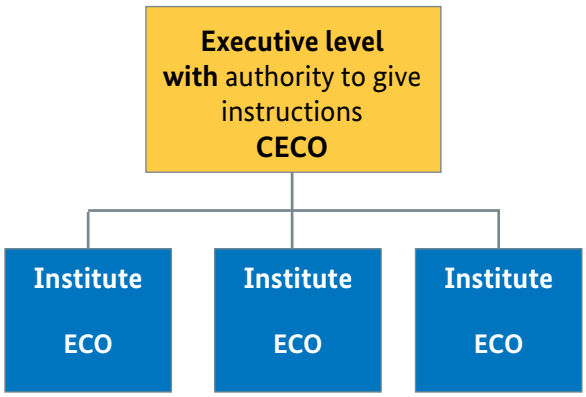
### 6.2.2 Who is the CECO and when?

In the academic world, a fundamental distinction must be made between non-university research institutions and universities when assessing characteristics of a CECO.

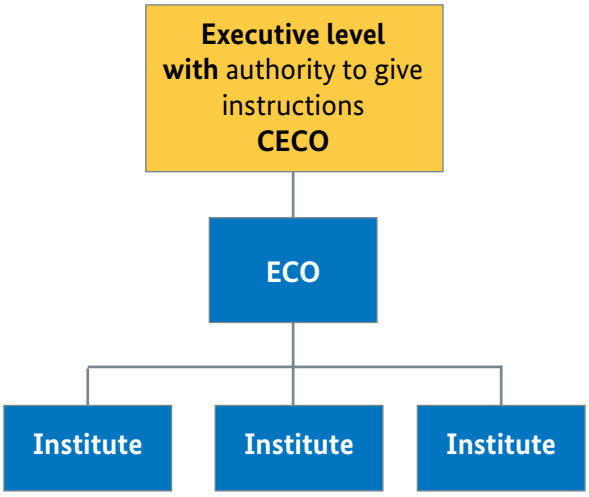
#### Non-university research institutions

The general principle of export control is a management issue also generally applies to non-university research institutions, which are usually supported by associations, foundations or companies:

If the respective executive level of the association, foundation or company has the authority to issue instructions and can therefore exert legal and actual influence on any export projects or publications, the CECO – as in industry – must be located at the executive level. It may be advisable to install an Export Control Officer (ECO) to structure and organise the operative export control processes and report on this to the CECO in regular audits.




The ECO may also be located as an administrative unit between the management level (i. e. the CECO) and several institutions.



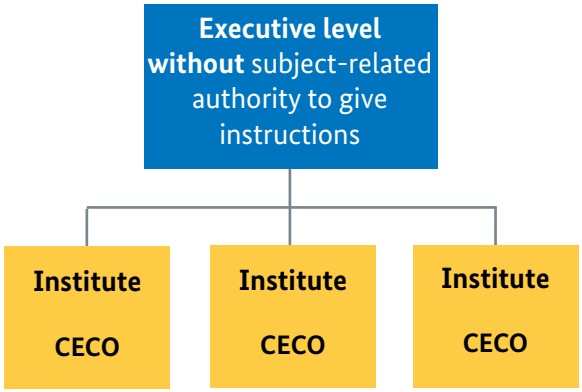
However, it is possible in individual cases, depending on the respective organisational structures, that the executive level does not have the authority to give instructions to those responsible for research projects and associated export projects.

In such cases, the person responsible must be held to account and is to be recognised as the CECO..

**Example:**

The executive committee of an association, which has several institutes is not authorised to issue instructions to the respective institute directors regarding the respective research projects and the associated export projects.

In these cases, the responsible director of the institute must assume the tasks of the CECO and ensure that all scientists assigned to him are aware and take into account export control issues as is necessary. He must establish and review appropriate structures.




## Universities

As a rule, universities are public law corporations and state institutions[1]. Universities usually have a specific faculty profile, a spectrum of areas of expertise that has been developed traditionally over the course of the universities' existence.

The university president represents the university externally. The academic disciplines are usually represented by chairs, i. e. professors (supported by academic staff). Civil servant professors are subject to a special civil service law, which is laid down by the federal state in the respective Civil Service Act. Professors carry out their various activities in research, teaching and examinations independently and are not bound by instructions.

The professors are, of course, also part of hierarchical structures and cannot themselves conclude research contracts and/or agree on co-operations on behalf of their university. This is rather within the responsibility of the president. With regard to export projects within the framework of **contract research** or **research cooperation**, the university is generally the exporter, so that the university president – as representative of the university – bears the ultimate responsibility for such export projects, i. e. acts as CECO.

The latter is therefore personally responsible for compliance with the export control regulations as CECO. He must take the staffing, procedural and organisational precautions necessary to comply with the provisions in foreign trade and payments. He is responsible for organising and monitoring the Internal Compliance Programme (ICP) as well as for selecting staff and their further training.

[1] Section 58 HRG.

A different situation only arises if professors are responsible for their own export projects and publish publications, i. e. not in the name of the university but in their own name (e. g. as part of a side-line job). In this case, the respective professor personally, as a private person, is to be viewed as the exporter within the meaning of foreign trade law. In these cases, it must be clarified with BAFA in each individual case whether it is necessary to designate the professor himself as CECO.

**Contact persons regarding CECO**

**Division 223**
Internal Compliance Programmes, Global Licensing

**Further information:**

**Module 6:** Internal Compliance Programme

## 6.3 EORI numbers

In all applications, exporters/transferors must state their EORI number (Economic Operators Registration and Identification number) to BAFA. This also applies to exports carried out by a private individual, e. g. a professor as part of a side-line job.

The EORI number is structured as follows: DE plus a maximum 15-digit number supplemented by a 4-digit branch number. With the introduction of the EORI number, all participants receive the branch number 0000.

The EORI number is not issued by BAFA but must be formally requested from Informations- und Wissensmanagement Zoll (IWM Zoll). It is also not possible for BAFA to change a name or address.

Further information on applying for EORI numbers and the application form 0870 can be found on the customs website www.bafa.de/ZollEORI.

A valid EORI number is also required to register with the ELAN-K2 export portal. Therefore, please apply for the EORI number well in advance of the registration and have an outdated address corrected. This also applies to private individuals.

**Contact partner**

**Division 216**
Compliance Control, Licence Registration

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# 7 Module 6
Internal Compliance Programmes for universities and research institutuions

## 7.1 Preliminary remarks

State export control is based on the freedom of foreign trade. This requires the personal responsibility of every scientist who decides to export products (e. g. prototypes, trial copies), exchange knowhow, provide services abroad, acquire external funds, export software and technology or make them available for access from abroad. In making his decisions, the scientist must always observe the prohibitions and licensing requirements of foreign trade.

**Further information:**

**Module 1:** Licensing requirements and prohibitions

However, the respective research institution also has a responsibility[1]. It is up to the research institution to create the organisational framework conditions so that infringements of the law within the research institution can be avoided from the outset. For this purpose, procedures must be established inter alia which systematically ensure an internal assessment under export control law before, for example, technologies are transferred and the requisite authorisations obtained.

In private business practice, this task is satisfied by implementing so-called Compliance Management Systems (CMS), the design of which is based on the risk profile of the respective organisation. Compliance Management Programmes designed to support compliance with legal requirements particularly in the area of export control are referred to as Internal Compliance Programmes (ICP).

The Federal Office for Economic Affairs and Export Control has set out recommendations on the criteria for an effective ICP in an information leaflet entitled Internal Compliance Programmes - ICP. The following remarks supplement these recommendations by transferring the questions tailored to companies to the special features of the academic sector and in particular the research institutions. In this respect, they do not replace but translate – where necessary – that which is important for an ICP in research institutions.

**Further information:**

Information leaflet Internal Compliance Programmes - ICP

1 Research institutions in the sense of this Module are universities and their institutes as well as non-university institutions and federal institutes with research tasks.

## 7.2 Organisational rules for research institutions

An obligation to take organisational measures to comply with export control requirements in particular can be derived from Section 8 (2) Foreign Trade and Payments Act (AWG). Pursuant to Section 8 (2) AWG, the granting of licences may be made subject to material and personal requirements, in particular the applicant's reliability. Whether the applicant is a private company, a public research institution or even a federal institute is irrelevant!

Reliability means being able to guarantee compliance with applicable law. The requirements as to reliability under of foreign trade law are specified in the Federal Government's Principles for Evaluating the Reliability of Exporters of War Weapons and Arms-related Products of 25 July 2001. Accordingly, the applicant must ensure by way of a suitable organisational structure and procedures that all prohibitions, licensing requirements and other duties, such as retention duties, can be complied with. The applicant must therefore establish an internal export control system.

The duty to install an ICP is incumbent on the Chief Export Control Officer (CECO) who must be appointed by the respective research institution and BAFA notified in writing of such. The CECO must always be a member of the body authorised to represent.

**Further information:**

**Module 5:** Exporter, the Chief Export Control Officer and his responsibility

## 7.3 Advantages of internal export controls

Effective export control also offers advantages and avoids significant risks. Participation in excellence initiatives is inconceivable without verifable implementation of legal obligations. What is more, potential cooperation partners of international standing are attaching increasing importance to compliance with security-relevant regulations so that it is at least a competitive advantage if not a condition for research cooperation to have an organised export control system in place.

Moreover, violations of export control law are not only subject to criminal prosecution but can also result in the loss of reliability of the research institution as applicant. This reliability also plays a role for state third party funders.

Actual or even alleged infringements of export control law can also result in a considerable loss of reputation. Public confidence in an ethical and responsible academia can also be permanently damaged.

Organised export control within the research institution helps to avoid these risks. Export control compliance is therefore in the best interest of both the research institutions and the scientists and other employees!

## 7.4 Personal responsibility in the ICP

In view of their knowledge, their experience and within the framework of the freedoms guaranteed to them under constitutional law, scientists have a special responsibility, particularly in the field of security-related research, which goes beyond legal obligations. However, developing ethical principles and mechanisms for dealing responsibly with research is the task of science itself. In practice, research institutions define ethical rules on the basis of voluntary Codes of Conduct and create structural framework conditions for ethically responsible research.

By contrast, the following comments on the criteria of an effective ICP refer to measures intended to ensure compliance with legal provisions. However, the boundaries are sometimes fluid. For example, the recommendations of the Deutsche Forschungsgemeinschaft (DFG) and the Leopoldina – Nationale Akademie der Wissenschaften – on how to deal with security-related research provide inter alia for the establishment of compliance offices at research institutions which support the management of the institution and its staff in complying with legal regulations. The establishment of a compliance office of this nature at research institutions is also recommended in this ICP guidance (see ICP criterion no. 3).

The export control ICP of a research institution should not, therefore, be seen as an isolated mechanism. Export compliance is always only part of the overall compliance of an organisation. It is therefore sensible and desirable for the ICP to be integrated into existing Codes of Conduct to implement ethical guidelines or to comply with other legal requirements.

## 7.5 Freedom of the sciences and organised compliance with the rules

The freedom of the sciences guaranteed in Art. 5 (3) GG is not granted without restrictions. It does not exempt from compliance with restrictions on foreign trade and does not immunise against criminal sanctions. However, an ICP is not limited to the reproduction of legal requirements to be met, but also draws up guidelines and actions to prevent violations of the law. Encroachments on the freedom of the sciences are conceivable.

How broadly mandatory compliance requirements can be formulated – particularly at universities - must be answered by each research institution itself and in individual cases. However, from the point of view of examining reliability in the context of export control, a research institution must address this issue and, where applicable, describe it in its ICP.

The requirements placed by BAFA on an ICP are mainly understood as target regulations. This means that in principle an obligation exists to comply with the requirement unless there are exceptional reasons for not doing so (comply or explain). In these cases, it is appropriate to choose milder – permissible – means to support export control compliance. Recommendations may then take the place of instructions, for example.

**Example:**

The president of a university is not authorised to have the specialist articles of university lecturers submitted to him before publication in order to check their compatibility with export control regulations. He may, however, set up a compliance unit and recommend – possibly referring to existing Code of Conduct – that the staff of the university contact it with questions about the legal limits of export control.

## 7.6 Criteria of an ICP in research institutions

In the area of export control, an effective ICP includes the following elements:

1. Top-level management commitment to export control compliance
2. Risk analysis
3. Organisational structure / chain of responsibilities
4. Human, technical and other resources
5. Process organisation
6. Record-keeping and documentation
7. Selection of staff, staff training and awareness raising
8. Process-related controls / system-related controls (ICP audit) / corrective measures / whistle-blower system
9. Physical and technical security

### 7.6.1 Top-level management commitment to export control compliance

Export control compliance can only function in research institutions – as in other areas – if the tone at the top is right, i. e. the top management clearly indicates that it takes export control requirements seriously and expects them to be met.

Top-level management (depending on the organisation, the presidium, the senate, the executive board and also the management) must make a clear commitment to comply with the provisions of foreign trade law and the objectives of export control. A so-called civil clause of university is not sufficient for this commitment.

The commitment must be made in writing and repeatedly communicated to the staff of the research institution.

The special responsibility of the management of the research institution for export control is furthermore emphasised by the institution of the CECO as person responsible for compliance.

**Further information:**

**Module 5:** Exporter, the Chief Export Control Officer and his responsibility

### 7.6.2 Risk analysis

The basic prerequisite for an effective ICP is a risk analysis, i. e. the identification and evaluation of compliance risks in the area of foreign trade.

As already mentioned, there is no standard ICP that would be equally valid for every research institution. The design will depend on factors such as the field in which research is conducted, the context of the respective research projects, the clients or cooperation partners as well as the type of possible research results and the intended handling.

It is crucial to analyse which legal regulations must be observed in foreign trade and to what extent the research institution may be affected. The legal situation is constantly changing. The same applies to the factors determining the extent to which the research institution is subject to export control regulations. The risk analysis is therefore a continuous process that needs to be constantly developed. Changes in the research institution itself must be monitored and evaluated, as must changes in the legal system. If findings are gained that affect the design of the ICP, an adjustment should be made immediately, but at the latest after completion of the compliance audit (see ICP criterion no. 8, page 92).

### 7.6.3 Organisational structure / chain of responsibilities

There is no prescribed template for the design of the organisational structure in the area of export control and its integration into the research institution. However, certain minimum requirements must be met:

The overall responsibility in the research institution for the subject of export control must be defined in writing and made public. In the case of research institutions that carry out export projects requiring individual export authorisations, this is the Chief Export Control Officer (see above) who should be identified in the organisational chart, including any necessary organisational unit for export control issues (Compliance Office). The other tasks and responsibilities associated with export control must also be clearly and definitively assigned and communicated within the research institution.

The document must be kept up to date. The description of the hierarchy of responsibilities must contain details of the delegation of responsibilities and the usual procedures in the absence of the overall person responsible.

The size and structure of the research institution determine whether export control is handled by individual specialist units of the research institutions (e. g. department, faculty, institute etc.) or centrally by an existing unit (e. g. legal department, audit), or whether there is a separate organisational unit for export control issues. One thing must be taken into account, however: persons who assume tasks in the field of export control must be as independent as possible in terms of the subject matter.

The fewer people work in a particular academic institution or field, the more difficult this is. Attention should be paid to ensuring that the persons exercising control functions are protected as far as possible from conflicts of interest.

**NB:**

In the context of research institutions, it should be noted that conflicts of interest can also arise from the tensions between scientific freedom and export control. It is therefore urgently recommended that the institution sets up a Compliance Office which is outside the circle of persons working directly in the field of scientific research both in terms of organisation and staff. In the case of small organisations, the task can be transferred to an existing organisational unit (e. g. legal department, internal auditing department).

Persons assuming control functions in a research institution should rank in the organisation in such a way that they are able to obtain the necessary information from the employees of the research institution and to stop processes of relevance to export control law. They must also be authorised to report directly to the management of the research institution (usually the CECO).

It is advisable to always include export control at an early stage, e. g. in the scientific project process in order to avoid frictions and conflicts of interest between academia and export control.

The installation of an export control officer in the research institution may be appropriate to structure and provide organisational support for the operative export control processes and report regularly to the Chief Export Control Officer.

### 7.6.4 Human, technical and other resources

- **Human resources**

The research institution must ensure that sufficient staff are deployed in all areas related to export control law who can prove that they possess the relevant specialist knowledge and are personally reliable (see ICP criterion no. 7, see page 91). This requirement relates primarily to the staffing of the Compliance Office. If the scientific staff themselves are assigned specific compliance functions, their training and awareness for export control is paramount.

Various factors play a role in the staffing of internal export control. Of particular importance is the size of the research institution, the volume of processes related to foreign trade law, i. e. in particular the areas in which research is conducted and their relevance to export control (Arms research? Is there a so-called dual-use problem?).

At least one person must be entrusted with the export control of the research institution. Depending on the average volume of cases with export control implications, the person concerned may only be temporarily involved in tasks under export control law. In order to be able to compensate for cases of absence, e. g. through leave or illness, a representative is also required who is equally qualified for export control.

- **Technical resources**

There are no mandatory requirements as to which technical resources must be used in order to comply with foreign trade regulations. In companies, an electronic system to handle foreign trade is recommended. In research institutions, the use of an IT-supported export control programme may also be required, depending on the scope of transactions relating to foreign trade law.

- **Other resources**

The persons entrusted with the export control tasks of the research institutions must have access at all times to the pertinent legal texts, including the control lists and persons in their applicable versions.

In addition, it is recommended that commentaries on export control legislation and the relevant trade journals are provided.

Persons entrusted with the tasks of export control must also have access to all organisational and procedural work instructions and recommendations at all times.

### 7.6.5 Process organisation

With respect to the operational implementation, the process organisation is the central element of an ICP. The process organisation should ensure that no transaction (e. g. sending of listed technology by email) is conducted without the necessary licence or in violation of existing embargos.

The work and organisational instructions and recommendations required for this must be regularly incorporated into a process manual or house rules. The process manual or the house rules should regulate the procedures and recommended actions that are applied in the research institution with regard to compliance with export control regulations.

**NB**

The specific preventive measures for compliance with the export control regulations depend on that which is possible and proportionate within the research institution. Best practice recommended actions may take the place of work instructions where the management level, and in particular the Chief Export Control Officer, have no right of intervention or authority towards persons in the field of scientific research.

**The process manual / house rules should at least cover the following:**

- Rules for compliance with export control regulations in the entire process from the initiation of a research contract or research cooperation to the sending of products and technology, in particular the specific handling of:

  · Embargos and sanction lists
  · Consignee and transaction checks
  · Control of listed items
  · Electronic transfer of technology
  · Control of unlisted items
  · Technical assistance

- Monitoring compliance of the conditions of licences

- Rules for interaction with the units concerned within the research institution, e. g. Compliance Office with the department for research contracts or, for example, legal department with the project managers of the research projects

- Coordination of all employees involved in or affected in any way by controls (e. g. scientists and other staff should be informed in writing that export control staff should be notified in any doubt or red flags. It should also be noted that an activity may only be carried out after it has been authorised by export control staff).

**Please also note the following:**

- **The process organisation must be tailored to the specific research institution and deal with all legal obligations in foreign trafficking that are recognised as relevant in the risk analysis!** (Example: rules on the procedures for dealing with trade and brokering transactions are not necessary if this activity is not carried out. However, a procedure for compliance control with respect to technical assistance should be in place at a research institution active in a security relevant area).

- It is recommended that **interfaces to any existing Codes of Conduct be checked** and that they be extended to include rules for compliance with export control regulations where applicable. In this way, existing procedures can be used so as to save on resources.

### 7.6.6 Record-keeping and documentation

Precise and understandable records of export control activities are indispensable for the compliance efforts of a research institution. A comprehensive accounting system helps to perform internal audits, complying with documentation retention requirements and in audits by the competent authorities.

Export-relevant documents must be kept in accordance with the legal provisions (Section 22 (3) AWV; Art. 20 EC Dual-Use Regulation.)

The individual verification steps must be documented precisely in all stages of processing a project. Steps must also be documented if the academic staff, possibly in cooperation with the Compliance Office, conclude that no application needs to be submitted to BAFA. The reasons leading to this conclusion must be documented in particular. Furthermore, it must also be clear where and how any licences granted are managed. All training certificates must also be kept for verification purposes. They are taken to the personnel file of the respective employee, for example. It must be possible for the records to be made available to the competent authorities. It should be possible to provide records electronically.

### 7.6.7 Selection of staff, staff training and awareness raising

- **Selection of staff**

Not every employee is suitable for performing tasks in the export control of the research institution (e. g. in the Compliance Office). Export control staff must have:

· Knowledge of foreign trade and payments law
· Knowledge of the application process
· Production and organisational knowledge

or learn about them promptly. Academics with export control functions must similarly have corresponding knowledge.

The export control staff are trained by means of employee induction programmes and prepared for the job by training courses.

- **Training**

The CECO must regularly seek information about his duties to adhere to compliance and organisational regulations. The Compliance Office staff must be up to date if the relevant regulations and procedures are changed. They should be given the opportunity to attend further training internally or externally in the area of export control at least once a year.

The same applies in full to academic staff with export control functions.

Staff affected by risks in connection with the foreign trade regulations should be informed about the internal export control system during induction.

- **Awareness raising**

Awareness raising by Compliance Office staff of the research institution or external service providers about the risks in foreign trade takes place annually.

Furthermore, all employees should have access to the organisational procedural instructions and recommendations regarding export control.

All employees of the research institution must be aware of whom to contact in case of questions regarding export control. A list with contacts should be easily accessible.

The necessary awareness for proliferation risks associated with the respective field of knowledge should be awakened and honed within the scope of university teaching and the training of young scientists.

### 7.6.8 Process-related controls / system-related controls (ICP audit) / corrective measures / whistle blower system

- **Process-related controls**

In order to ensure that the ICP is applied in daily work and correctly implemented, control mechanisms must be incorporated as part of daily operations. These so-called process-related controls relate in particular to the process organisation as described under No. 5. One approach to ensure that the transactions are conducted correctly is to approve products based on the 4-eyes principle. Infringements of foreign trade laws and regulations in the research institution can be largely avoided in this way.

- **System -related controls**

Regardless of the examination as to whether the existing ICP is correctly applied to the matter at hand, the ICP must also be regularly inspected in its entirety for concept, appropriateness and effectiveness. An ICP is not a static set of measures and must therefore be tested and updated. These so-called system-related controls or ICP audits ensure that the written internal compliance processes (still) correspond to the export control compliance requirements of the research institution. The reasons for an adjustment of the ICP may lay in the research institution itself (e. g. new area of activity, new types of research projects or other types of activities) or changes in the legal situation. The system-related control covers the entirety of the ICP and should therefore include the complete internal export control of the research institution and cover all nine ICP criteria presented in this information leaflet. Ideally, system-related controls should take place once a year, and at least every three years.

- **Corrective measures**

If it emerges during a system audit that rules may not have been complied with, the internal export control office must be informed and suspected infringements, the recommended corrective measures as well as an assessment of the efficacy of these corrective measures should be recorded in writing; the record should be kept. After consulation with the internal export control office, a voluntary declaration (Art. 22 (4) AWG) or other contact with the authority may also be considered.

- **Whistle blower system**[2]

A well-functioning ICP also has clear reporting procedures in case of violations of foreign trade regulations suspected in the research institution.

In the context of a compliance culture, the persons working in the research institution must be able to trust that they will not experience professional disadvantages and impairments to their (academic) career if they raise questions in good faith or express concerns about compliance with regulations.

They must be provided with a written procedural instruction on how they can point out any abuses and misconduct at the research institution in a protected, possibly anonymous manner (whistle blower system).

The procedure must be communicated to all persons working in the research institution. This option can also be granted to third parties (e. g. students). Indications of possible misconduct must be investigated appropriately. Any infringements found must be punished accordingly.

### 7.6.9 Physical and technical security

Listed items must be protected from unauthorised removal by third parties and employees. Suitable protective measures (e. g. against theft of listed substances from the laboratory) must be taken and the intangible (listed) research results protected by physical, organisational and IT measures (e. g. encryption of the stored and transferred data).

Access and exit controls are conceivable here as well as other authorisation concepts as well as for listed software and technology, such as password protected systems, a firewall, control regarding storage media and emails.

**Contact partner ICP**

**Division 223**
Internal Compliance Programmes, Global Licensing

**Telephone:** +49 (0)6196 908-0
**Fax:** +49(0)6196 908-1793
**Email:** ausfuhrkontrolle@bafa.bund.de

## 7.7 Liability under criminal and administrative law

Research institutions participating in foreign trade and their employees face a large number of risks if applicable laws are not followed. Violations of export control law may entail serious consequences under criminal and administrative law for the management of the research institution and also for scientists and other staff.

Whilst intentional infringements of foreign trade law generally constitute a criminal offence, negligent infringements are predominantly pursued as an administrative offence (see Sections 17-19 AWG).

2 With respect to the whistleblower system, see also the recommendations of the DFG on good scientific practice of 2013, no. 17

### 7.7.1 Criminal offences

#### AWG/AWV

The criminal offences of foreign trade law are regulated in Sections 17, 18 AWG and as a rule require intentional behaviour. Infringements of arms embargos as well as EU embargos and violations of licensing requirements in the AWV and the EC Dual-Use Regulation are covered.

**Who can commit a criminal offence?**

Most of the criminal offences are not special offences, i. e. they cannot be committed only by the exporter designated in the licence. The perpetrator is the person who carries out the actual process of exporting without licence or contrary to an embargo on his own authority. This can also be the individual researcher. Persons who are not in control of the export process, who do not therefore deliberately control it, may be criminally liable for aiding and abetting. The Chief Export Control Officer who is responsible for the entire area of export control within his institution and who does not stop a prohibited or unauthorised export process or does not install the necessary organisational measures to do so, may be found guilty of an unauthorised or prohibited export by omission.

#### War Weapons Control Act

The criminal offences relating to war weapons can be found in Section 5 of the War Weapons Control Act (KrWaffKontrG). According to these provisions, anyone deliberately or negligently or recklessly developing or manufacturing nuclear, biological, chemical weapons, anti-personnel land mines or cluster munitions as well as anyone promoting the development and manufacture of these weapons, is criminally liable (Sections 19 (1), 20 (1), 20a (1) KrWaffKontrG). The manufacture of other war weapons constitutes a criminal offence if it is carried out without licence (Section 22 a (1) No. 1 KrWaffKontrG).

### 7.7.2 Administrative offences

Violations of foreign trade law, which are committed negligently generally constitute an administrative offence. Anyone neglecting to take a standard level of care acts negligently. The administrative offences are regulated in Section 19 AWG, Sections 81, 82 AWV. Violations are punishable by a fine of up to EUR 500,000 and EUR 30,000 respectively. As with criminal offences under Sections 17, 18 AWG, anyone can be the perpetrator, i. e. also an individual researcher or the Chief Export Control Officer.

For the area of export control, the administrative offence of a violation of supervisory obligations in Section 130 Act on Regulatory Offences (OWiG) is also relevant. With regard to universities, which are constituted as corporations, institutions or foundations under public law, as well as research institutions that are federal authorities, Section 130 OWiG applies at most, however, if they are not exclusively engaged in sovereign activities but in commercial transactions. This is likely to be the case in the context of contract research. In this area, an association fine pursuant to Section 30 OWiG against the university or the research institution may also be considered in principle.

**Further Information:**

Information leaflet Internal Compliance Programmes - ICP

HADDEX: Part 1, Chapter 7 (German)

## 7.8 Foreign trade audits – was everything above board?

Violations of foreign trade law may come to light in particular in the context of foreign trade audits. Anyone involved in commercial transactions may be subject to regular customs checks on the basis of the Union Customs Code. Among other things, all transactions under foreign trade law are checked.

More details on the procedure of any such audit is provided at:

http://www.zoll.de/DE/Fachthemen/Pruefungen-Steueraufsicht/Zoll-und-Aussenpruefungen/zoll-und-aussenpruefungen_node.html

**Empirical report of the Helmholtz Association on foreign trade audits by the main customs offices**

At various centres of the Helmholtz Association (independent of the organisation as a company with limited liability, registered charity or foundation), checks have been and are made by the competent main customs offices to verify compliance with export regulations. All research institutions are subject to a general duty to provide information. The scope and depth of the audit may vary depending on the research field of the respective centre; sometimes the focus is placed on the movement of goods and sometimes on payment transactions and the transfer of know-how. If violations are identified, they are penalised depending on their severity and the existing organisation in the research institution or instructions are given to remedy any deficiencies in the organisation that may have led to the violation. In the event of repeated infringements and deficiencies in the organisation, criminal and administrative fine proceedings may be instituted against the persons responsible (both responsible at management level and those entrusted with this task in day-to-day business).

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## Responsibilities and information sources

**Federal Office for Economic Affairs and Export Control (BAFA)**
Frankfurter Straße 29-35
65760 Eschborn

Telephone: +49 (0)6196 908-0
Fax: +49 (0)6196 908-1800
Email: ausfuhrkontrolle@bafa.bund.de
Internet: www.bafa.de

### Contacts Outreach to Academia

**Basic legal questions:**

**Division 211**
Email: academia@bafa.bund.de

**Basic technical questions:**

**Division 321**

### Directorate-General 2 – Export-Procedures, Licences, International Regimes – Procedures, Outreach Projects

**Responsible Divisions:**

| | |
|---|---|
| Division 211 | Basic and Procedural Questions |
| Division 212 | Licences for Dual-Use Items |
| Division 213 | Licences for Conventional Ars |
| Division 214 | Embargos |
| Division 215 | Other Licensing Requirements, Non-listed items, Special Export Procedures |
| Division 216 | Control of the fulfilment of licensing conditions Control, Licence Registration |
| Division 221 | Information Analysis, Reports |
| Division 222 | War Weapons Control |
| Division 223 | Internal Compliance Programmes, Global Licensing |

### Directorate-General 3 – Export-Technology, Technical Assessment, International Regimes – Technology

**Responsible Divisions:**

| | |
|---|---|
| Division 311 | Electronics, Optics, Acoustics, Semi-conductor equipment |
| Division 312 | Weapons Systems, Aircraft and Land Vehicles, Vessels, Missiles and Aerospace Systems |
| Division 313 | Machine Tools and Measuring Machines |
| Division 314 | Information Security and Military Electronics |
| Division 315 | Process Engineering, Industrial Equipment |
| Division 321 | Basic Technology Issues, Procedures, Control lists and Regimes |
| Division 322 | Chemical, Biological Agents, Materials |
| Division 323 | Nuclear Technology, Radioactive Substances |

### Other service offices of BAFA

Info office: **ELAN-K2 Export portal**
Service telephone: +49 (0)6196 908-1613

Info office: **Export control application status**
Service telephone: +49 (0)6196 908-1868

### Further contact points:

**Federal Ministry for Economic Affairs and Energy**
Citizen dialogue: https://www.bmwi.de/Navigation/DE/Service/Kontakt/kontakt.html

Internet: www.bmwi.de

# Further information

### Export control in general

- HADDEX – Handbuch der Exportkontrolle (German)
- Praxis der Exportkontrolle (German)
- BAFA information leaflet Exportkontrolle und das BAFA (German)

  http://www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk_merkblatt_exportkontrolle_bafa.pdf?__blob=publicationFile&v=8
- Broshure Proliferation – Wir haben Verantwortung of the Federal Office for the Protection of the Constitution (German)

  https://www.verfassungsschutz.de/download/broschuere-2018-07-proliferation-wir-haben-verantwortung.pdf

### Export control and science

### Brochures

- Ethics self assessment for Horizon 2020 projects

  https://erc.europa.eu/sites/default/files/document/file/EthicsSelfAssessmentStepByStep.pdf
- Guidance for the Control of Sensitive Technologies for Security Export for Academic and Research Institutions, Japanese Ministry of Economy, Trade and Industry (METI), 2017

  http://www.meti.go.jp/policy/anpo/law_document/tutatu/t07sonota/t07sonota_jishukanri03_eng.pdf
- Guide to Export Controls and ICT, Australian Government – Department of Defence, 2016

  http://www.defence.gov.au/ExportControls/_Master/docs/Australian_Export_Controls_and_ICT.pdf
- Guidelines for researchers on dual use and misuse of research, Flemish Interuniversity Counsel, 2017

  https://www.kuleuven.be/english/research/ethics/Brochure-dual-use
- Picking flowers, making honey – The Chinese military's collaboration with foreign universities, Alex Joske, Policy Brief No. 10/2018, Australian Strategic Policy Institute

  https://www.aspi.org.au/report/picking-flowers-making-honey
- National Recommendations - Scientific Freedom and Scientific Responsibility (2014), Deutsche Forschungsgemeinschaft (DFG) und Deutsche Akademie der Naturforscher Leopoldina e. V.

  https://www.leopoldina.org/uploads/tx_leopublication/2014_06_DFG_Leopoldina_Wissenschaftsfreiheit_-verantwortung_D.pdf
- Biosicherheit – Freiheit und Verantwortung in der Wissenschaft, Deutscher Ethikrat, 2014.

  https://www.ethikrat.org/fileadmin/Publikationen/Stellungnahmen/deutsch/stellungnahme-biosicherheit.pdf

**Essays**

- Bauer, Sibylle; Brockmann, Kolja; Bromley, Mark; Maletta, Giovanna: Internal compliance and export control guidance documents for actors from academia and research, in: SIPRI Good Practice Guide, Export Control ICP Guidance Material. No. 1 2017.

- Bauer, Sibylle; Bromley, Mark: The Dual-Use Export Control Policy Review: Balancing Security, Trade and Academic Freedom in a Changing World, in: Non-Proliferation Papers, No. 4, EU Non-Proliferation Consortium, 2016.

- Charatsis, Christos: Dual-Use Research and Trade Controls: Opportunities and Controversies, in: Strategic Trade Review, Volume 3, Issue 4, 2017, pp. 47-68.

- Charatsis, Christosch: Setting the Publication of Dual-Use Research Under the Export Authorisation Process: The H5N1 Case, in: Strategic Trade Review, Volume 1, Issue 1, 2015, pp. 65-72.

- Kochendörfer, Mirjam; Pietsch, Georg: Exportkontrolle und Wissenschaft. Outreach to Academia, in: AW-Prax (2018), Nr. 03, S. 97 ff.

- Nawrotzki, Barbara, Technologietransfer und die Freiheit der Forschung bei Publikationen, in: AW-Prax (2019), Nr. 02, S. 70 ff.

- Rohde, Christine: Laws and Regulations versus Self-restriction: The potential of Codes of Conduct in the Life Sciences, European Forum Alpbach, Science Meet Practice – Non-proliferation versus fundamental rights and scientific freedom – a Debating Forum, August 2013, S. 19 ff.

- Schön, Wolfgang: Grundlagenwissenschaft in geordneter Verantwortung: Zur Governance der Max-Planck-Gesellschaft, Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V., 2015.

- Starcks, Brian; Tucker, Christopher: Export Control Compliance and American Academia, in: Strategic Trade Review, Volume 3, Issue 4, 2017 S. 69-79.

- Willmann-Lemcke, Juliane: Wissenschaft und Exportkontrolle, in: AW-Prax (2019), Nr. 02, S. 54 ff.

**Technology transfer**

**Broshures**

- BAFA-Merkblatt zu Technologietransfer und Non-Proliferation

  http://www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk_merkblatt_technologietransfer.pdf?__blob=publicationFile&v=4

**Essays**

- Garrido Rebolledo, Vicente: Intangible Transfers of Technology and Visa Screening in the European Union, in: Non-Proliferation Papers, No. 13., EU Non-Proliferation Consortium, 2012.

- Meier, Oliver (Ed.): Dual-Use technology transfers: Finding the right balance between control and cooperation, in: Technology Transfers and Non-Proliferation: Between control and cooperation, 2013.

- Nexon, Elisande: Strengthening the BTWC through laboratory best practices and biosecurity, in: Non-Proliferation Papers, No. 3, EU Non-Proliferation Consortium, 2011.

**Application**

- BAFA-Merkblatt zur Optimierten Antragstellung

  http://www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk_merkblatt_optimierte_antragstellung.pdf?__blob=publicationFile&v=6

**Embargos**

- Übersicht über die länderbezogenen Embargos (Stand: 24.01.2019)

  http://www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk_embargo_uebersicht_laenderbezogene_embargos.pdf?__blob=publicationFile&v=4

- BAFA-Merkblatt zum Außenwirtschaftsverkehr mit Embargo-Ländern

  http://www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk_merkblatt_embargo.pdf?__blob=publicationFile&v=2

- BAFA-Merkblatt zu den Entwicklungen des Iran-Embargos

  www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk_merkblatt_iran_embargo.pdf?__blob=publicationFile&v=5

- BAFA-Merkblatt zum Außenwirtschaftsverkehr mit der Russischen Föderation

  http://www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk_merkblatt_russische_foederation.pdf?__blob=publicationFile&v=2

- Consolidated List of Sanctions

  https://eeas.europa.eu/topics/sanctions-policy/8442/consolidated-list-of%20sanctions.en

- EU Sanctions Map

  https://sanctionsmap.eu/#/main

**Procedural simplifications**

- BAFA-Merkblätter zu Allgemeinen Genehmigungen und den diesbezüglichen Registrier- und Meldeverfahren Teil 1-3

  http://www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk_agg_merkblatt_teil1.pdf?__blob=publicationFile&v=3 **(Teil1)**

  http://www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk_agg_merkblatt_teil2.pdf?__blob=publicationFile&v=3 **(Teil 2)**

  http://www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk_agg_merkblatt_teil3.pdf?__blob=publicationFile&v=3 **(Teil 3)**

- BAFA-Merkblatt zu Sammelgenehmigungen für Dual-Use-Güter

  http://www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk_sag_merkblatt_dual-use.pdf?__blob=publicationFile&v=2

- BAFA-Merkblatt zu Sammelgenehmigungen für Rüstungsgüter

  http://www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk_sag_merkblatt_ruestungsgueter.pdf?__blob=publicationFile&v=2

**ICP**

- Information Leaflet about Internal Compliance Programmes (ICP) – Company-internal export control systems

  http://www.bafa.de/SharedDocs/Downloads/DE/Aussenwirtschaft/afk_merkblatt_icp.pdf?__blob=publicationFile&v=5