



Department
for Business
Innovation & Skills

**EXPORT CONTROL
ORGANISATION**

Guidance on export of
technology

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1. Introduction

Under UK and European export control legislation a licence is required to export certain types of “technology”. The power to control the export or transfer of “technology” by any means was included in the Export Control Act 2002, which came into force on 1 May 2004.

The sorts of “technology” covered by the controls is that related to the “development”, “production” or “use” of certain “goods” subject to export control, or “technology” subject to the end-use control in relation to weapons of mass destruction, certain arms embargoes or unauthorised military exports. In other words specific information which may take the form of blueprints, plans, diagrams, models, formulae, tables, engineering designs and specifications, manuals and instructions etc. For more details of what can be covered, see under [Section 3](#) below.

The controls apply to anyone or any entity - companies, individuals and academics alike. Similar controls apply where there is a transfer of “technology” to a person or place within the UK or by a UK person located outside the EU¹. These, too, are aimed at preventing the transfer of technology subject to the end-use control in relation to weapons of mass destruction and, again, are aimed at companies, individuals and academics².

As well as UK legislation, an EU Dual-Use Regulation (Council Regulation 428/2009) on the export of dual use items covers the transmission of dual use “software” or “technology” by electronic media, fax or telephone to a destination outside the European Union. It applies to oral transmission of “technology” by telephone where the “technology” is contained in a document, and the relevant part of that document is read out over the telephone or is described over the telephone in such a way as to achieve substantially the same result as if it had been read out.

Within UK export control legislation “technology” is a defined term. This and other defined terms are denoted by the use of quotation marks. Definitions of some key terms are set out at the end of this Guidance Note. A full list of defined terms can be found in the **UK Strategic Export Control Lists** which are published on <https://www.gov.uk>

¹ See also **Guidance on the Transfer Abroad of Controlled Military Technology and Software by Electronic Means** published on <https://www.gov.uk>

² Of particular interest to academics is the ECO’s guidance on technology transfers which can be found in the **Guidance on the Export Control Act for academics and researchers in the UK** which is published on <https://www.gov.uk>

2. The Extent of the Controls

It is worth bearing in mind that the thrust of the controls on technology is to prevent substantive information becoming available to proliferators and procurers of either weapons of mass destruction or conventional weapons. The controls are not intended to interfere unduly with normal commercial or academic practices. Key exemptions that exporters should be aware of cover:

- information already “in the public domain”
- “basic scientific research”
- and the “technology” “required” for the installation, operation, maintenance and repair of controlled items, whose export has been previously authorised.

• Information in the Public Domain and Basic Scientific Research

The controls on “technology” which requires an export licence do not apply to information that is “in the public domain”, to “basic scientific research”, or (except in the case of “technology” directly associated with nuclear goods listed in Category 0 of Annex I to the EU Dual-Use Regulation) to the minimum necessary information for patent applications. Consequently product brochures and company presentations may not require an export licence where the information is “in the public domain”, unless the brochure or presentation contains non-controlled dual-use technology which the exporter knows, or suspects, will be put to “any relevant use”. In practice, it will be very rare for company literature in the public domain to contain such material.

The same relaxations apply to published technical papers. The exchange of research material between an academic based in the UK and another outside the UK would not be controlled if it were “basic scientific research”. For example studies of the low temperature electrical resistance of metals in order to determine the properties of the underlying electronic structure of these materials could reasonably be described as “basic scientific research”.

• Technology required for the installation, operation, maintenance and repair of controlled items

Unless otherwise specified, an export licence granted for any controlled items also authorises the export of the minimum “technology” “required” for the installation, operation, maintenance and repair of the items, to the same destination and end-user as the items.

3. What is Technology?

For the purposes of export control, “technology” is defined as specific information necessary for the “development”, “production” or “use” of “goods”, in the Export Control Order 2008 and the EU Dual-Use Regulation.

As we outlined above, this information may take the form of blueprints, plans, diagrams, models, formulae, tables, engineering designs and specifications, or manuals and instructions, either written or recorded on other media or devices such as disks, tapes or read-only memories.

Some specific “technology” is listed and controlled in its own right and other than “technology” related to nuclear goods, most controls apply to information that is “required” for the “development”, “production” or “use” of controlled goods.

This is implemented through Software and Technology Exemptions (in the Export Control Order 2008) and a General Technology Note and Nuclear Technology Note (in the EU Dual-Use Regulation). See Definitions in [Section 6](#) below for clarification on terminology.

- **Software and Technology Exceptions (Article 18)³ in the Export Control Order**

The intent of the Software and Technology Exceptions in the Export Control Order 2008 is:

1. To bring under control all “technology” that is capable of being used for the “development”, “production” or “use” of military goods, whether or not it is intended to be applied to military goods.
2. It removes any controls on “basic scientific research”, “technology” that is “in the public domain”, and “technology” that is the minimum necessary for the installation, operation, maintenance and repair of non-military items.

For example, if we look at an Information Notice describing the repair of the airframe of a Boeing 707 aircraft, it is clear that it is “technology” capable of being “required” for the “use” of a military aircraft. The Notice would however constitute the minimum technology necessary for the repair of a non-military item and so is not controlled.

Another example might be a product brochure taken from a publicly available website that outlines the capabilities of a piece of military equipment. The brochure could include “technology” for the “use” of military equipment but, since the brochure is clearly “in the public domain”, it is not controlled.

³ Previously the General Technology Note (GTN) in the Export of Goods, Transfer of Technology and Provision of Technical Assistance (Control) Order 2003

- **General Technology Note (GTN) in the EU Dual-Use Regulation**

The GTN in the EU Dual-Use Regulation works in a different way. The intent of the GTN is to control only that portion of “technology” that is specific to controlled items. The result is that any “technology” that is shared between controlled and non-controlled dual-use items is not controlled. For example, if the technology used to produce an analogue to digital converter with a -55 to + 125 degree operating temperature range, is the same as that used to produce one with a reduced operating temperature range, then it is not controlled. If, however, the “technology” needed to produce the extended temperature range device is different to that used to produce the reduced temperature range device, then the “technology” used to produce the former would be controlled.

- **Nuclear Technology Note**

This is similar to the EU Dual-Use Regulation GTN but brings into control all “technology” directly associated with nuclear goods controlled in Category 0 of Annex 1 to the Regulation.

4. Location of the controls on Technology

The controls on the export of “technology” can be found at the following locations in the Export Control Order 2008 and the strategic export control lists:

2. **Technology relating to military, paramilitary, or security goods**

Military, paramilitary or security “technology” is subject to control under entry ML22 in the UK Military List (Schedule 2, Part 1 of the Export Control Order 2008). These controls should be read in conjunction with Article 18 (Software and Technology Exception).

3. **Technology relating to explosive-related goods**

A licence is required for the export of technology required for the use of explosive-related goods as specified in the UK Military List (Schedule 2, Part 2 of the Export Control Order 2008).

4. **Technology relating to dual-use items**

Industrial and nuclear-related “technology” is subject to control under the EU Dual-Use Regulation and Schedule 3 of the Export Control Order 2008 (the UK Dual-Use List). The scope of “technology” subject to control is detailed in Annex I to the Regulation under sub-category E of each of the categories listed and in entries PL9005, PL9008 and PL9009 of Schedule 3 of the Export Control Order 2008. Many of the “technology” controls need to be read in conjunction with the General

Technology Note, or the Nuclear Technology Note for Category 0 items at the start of Annex I to the Regulation.

5. Other Technology

A licence is required to export any other “technology” where the end-use control contained in the EC Regulation (Article 4(1) to (4)) and the Export Control Order 2008 (Articles 4,5,6,7,10,11, 12 and 26) applies. In addition, there may be controls on the export of other technology to certain destinations subject to binding UN trade sanctions.

5. Case Studies

Company A would like to have outer cases for a military radio, manufactured in another country by **company B**. To find out if the latter is able to produce the cases, company A must send some drawings of the parts to be made. As the cases are specifically for the military radio, the production drawings constitute “technology” for the “production” of a military item. The GTN does not release the “technology” from control, so an export licence is required.

Company C manufactures night vision sights for small arms. The products are sold worldwide and a request has been made for 200 user manuals to be sent to a foreign army. Company C has made and sold so many of the sights that the user manual can be obtained from their publicly-available web site. The foreign army is aware of this but want the manuals posted as hard copies. As a user manual for a military list item, the “technology” within the manual would constitute “technology” for the “use” of a controlled item, so normally an export licence would be required. However, as the user manual is available in the public domain it is released from control by the GTN. That the foreign army has asked for hard copy manuals makes no difference to the freedom to export without an export licence.

Company D makes controlled mass spectrometers and other scientific instruments and wants to send some publicity material to a trade fair in another country. The material highlights the typical products made, and includes testimonials from satisfied customers. Although the company makes controlled items, the publicity material does not include specific information necessary for the “development”, “production” or “use” of the items. The publicity material is therefore not “technology” as defined and does not require an export licence.

6. Definitions from the EU Dual-Use Regulation and the UK Export Control Order 2008

"basic scientific research" means 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.

"development" is related to all phases prior to serial production, such as design, design research, design analyses, design concepts, assembly and testing of prototypes, pilot production schemes, design data, the process of transforming design data into a product, configuration design, integration design, and layouts.

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

"production" means all production phases, such as construction, production engineering, manufacture, integration, assembly (mounting), inspection, testing and quality assurance.

"required" as applied to technology or software, refers only to that portion of technology or software which is peculiarly responsible for achieving or extending the controlled performance levels, characteristics or functions. Such required technology or software may be shared by different goods.

"use" means operation, installation (which includes on-site installation), maintenance (checking), repair, overhaul and refurbishing.

"any relevant use" means use in connection with the development, production, handling, operation, maintenance, storage, detection, identification or dissemination of chemical, biological or nuclear weapons or other nuclear explosive devices; or the development, production, maintenance or storage of missiles capable of delivering such weapons.

7. Further Information

For further information on export control related matters please contact:

ECO Helpline
Export Control Organisation
Department for Business, Innovation and Skills
3rd Floor
1 Victoria Street
SW1H 0ET
Tel: 020 7215 4594
Fax: 020 7215 2635
Email: eco.help@bis.gsi.gov.uk

Information on export controls is published on <https://www.gov.uk>

NOTE: This document is for guidance only. It is NOT a statement of law. Before exporting you should refer to the legal provisions in force at the time.

ANNEX A: Extracts from Legislation

- **Export Control Order 2008 – Article 18 (Software and Technology Exception)**

“Software and technology exceptions

18.—(1) Nothing in article 3, 4 or 5 shall be taken to prohibit the transfer of technology—

- (a) that is in the public domain;
- (b) that is the minimum technology required for—
 - (i) the installation, operation, maintenance or repair of goods or software that are not military goods or software or UK controlled dual-use goods or software; or
 - (ii) a patent application; or
- (c) in the course of basic scientific research.

(2) Nothing in article 10, 11 or 12 shall be taken to prohibit the transfer of software or technology in the public domain.

(3) In this article, “basic scientific research” means experimental or theoretical work undertaken principally to acquire new knowledge of the fundamental principles of phenomena or observable facts and not primarily directed towards a specific practical aim or objective.”

- **EU Dual-Use Regulation – General Technology Note**

1. The export of "technology" which is "required" for the "development", "production" or "use" of goods controlled in Categories 1 to 9, is controlled according to the provisions of Categories 1 to 9.
2. "Technology" "required" for the "development", "production" or "use" of goods under control remains under control even when applicable to non-controlled goods.
3. Controls do not apply to that "technology" which is the minimum necessary for the installation, operation, maintenance (checking) and repair of those goods which are not controlled or whose export has been authorised.
4. Controls on "technology" transfer do not apply to information "in the public domain", to "basic scientific research" or to the minimum necessary information for patent applications.

- **EU Dual-Use Regulation - Nuclear Technology Note**

1. The "technology" directly associated with any goods controlled in Category 0 is controlled according to the provisions of Category 0.
2. "Technology" for the "development", "production" or "use" of goods under control remains under control even when applicable to non-controlled goods.
3. The approval of goods for export also authorizes the export to the same end-user of the minimum "technology" required for the installation, operation, maintenance and repair of the goods.
4. Controls on "technology" transfer do not apply to information "in the public domain" or to "basic scientific research".

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Any enquiries regarding this publication should be sent to:

Department for Business, Innovation and Skills
1 Victoria Street
London SW1H 0ET
Tel: 020 7215 5000

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