

From a practical view: The proposed Dual-Use Regulation and Export Control Challenges for Research and Academia

Fraunhofer Headquarters, Legal Department, Export Control
TNO Defence, Safety and Security

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Contact

Branislav Aleksic
Legal Counsel, Export Control
branisav.aleksic@zv.fraunhofer.de
T +49 (0)89 1205 2833

J.J.C. (John) de Bie
Contract Manager
john.debie@tno.nl
T +31 (0)88 8 66 25 02

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I. Introduction

Research and academia are not adequately represented in the *Council Regulation (EC) No 428/2009 of 5 May 2009* (hereafter referred to as "**Dual-Use Regulation**"), as well as the proposal for the new Dual-Use Regulation 2016/0295 (COD). Recital (8) of the proposal names "researchers" as an example for natural persons involved in the export of dual-use items. Nevertheless, no specific provision dealing with or even defining the meaning of research and academia is to be found in the Dual-Use Regulation.

However, through the terms 'technology' and 'software' research and academia fall within the scope of the Dual-Use Regulation and the proposal. Especially, the term 'technology' is the pivotal point when applying the Dual-Use Regulation and is defined in Annex I as follows: "Technology means specific information necessary for the 'development', 'production' or 'use' of goods. This information takes the form of 'technical data' or 'technical assistance'."

Generally, the result of scientific research and academia is newly gained knowledge and not foremost a newly developed product. The current dual-use regime however follows a list based approach: An exhaustive list of certain goods, such as materials, equipment and to some extent even technology serves as a basis for the assessment on whether a dual-use good is subject to control.

Yet, a dual-use regime that solely relies on an exhaustive list of goods, tangible or intangible, cannot provide the necessary means for effective control of the dissemination of goods potentially used for military purposes. Therefore the Dual-Use Regulation also addresses 'technology' which is 'required' for the 'development', 'production' or the 'use' of the listed goods.

The difficulty is to reconcile the requirements, imposed by the Dual-Use Regulation to guarantee the effective control of dual-use goods with a clearly structured set of rules allowing research and academia to effectively comply with the outlined regulations. Nonetheless, not every piece of information in the form of technology is subject to control.

There are certain exemptions: The General Technology Note for example states that "Controls on 'technology' transfers do not apply to information 'in the public domain', to 'basic scientific research' or to the minimum 'necessary information for patent applications'". Some of these exemptions also apply to special fields of technology such as software or nuclear technology.

However major uncertainties exist in applying these above mentioned exemptions when having to comply with the Dual-Use Regulation. Is the scientific paper in question 'technology'? Is it 'basic scientific research'? How do I make information available to meet the requirements of the definition of 'public domain'?

Summing up, the mentioned exemptions form a vital part for research and academia when trying to comply with the dual use regulation. Thus, it is a compelling necessity that these exemptions are accompanied by clear guidelines on their application.

II. Challenges

Eventually the research community faces three major challenges when complying with the Dual-Use Regulation:

Uncertainties with regard to the application of the aforementioned exemptions, export control authorisation requirements in research programs such as Horizon 2020 and the control of open source software stated in the Dual-Use Regulation.

The following situations are faced by researchers on a daily basis and serve as prime examples for the mentioned concerns.

A researcher plans on publishing a scientific paper in the United States – the paper was distributed at an open conference in Germany before. This paper contains technology subject to export controls under the Dual-Use Regulation.

During the assessment of this paper the question arises whether the information contained in this paper is already in the public domain and therefore exempted from being controlled.

„in the public domain“ is defined in Annex II of the Dual-Use Regulation as follows:

"In the public domain" (GTN NTN GSN), as it applies herein, 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")."

Looking at this definition follow up questions which arise are:

Does the distribution of the paper at a conference open to everyone, render the paper to be regarded as being in the public domain?

Would it be necessary to explicitly specify that this paper may be disseminated further without any restriction?

Can you prevent the paper from being in the public domain by restricting its further dissemination- if so, how?

Another concern is the basic scientific research exemption and its definition in Annex II:

„"Basic scientific research" (GTN NTN) 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.“

A definition that seems to be quite clear in its elements, in its application however, it reveals major uncertainties- as the well-known Fouchier case has shown. In this case the virologist Fouchier has argued that his research falls under the basic scientific research exemption, since his primary research goal was to understand the transmissibility of the H5N1 Virus. The Dutch export control authority however argued that conducting research on transmissibility is research towards a specific practical aim: the transmissibility itself- and therefore, the undertaken research does not qualify as basic scientific research.

Following the line of argumentation of the Dutch export control authority the basic scientific research exemption would only apply in cases of a chance find- since it is almost impossible to challenge the existence of a practical aim or objective.

In the light of the primary objective of the Dual-Use Regulation, the limitation of proliferation risks, it is absolutely necessary to set up parameters for the classification of permitted scientific research and such research which requires a license. The motivation of the researcher to conduct research i.e. "a specific practical aim or objective", as the only decisive criteria, creates too many uncertainties. This "interpretive burden" confuses and disjoins already complex rules, making application difficult.

Problems especially accumulate in Horizon 2020 funded projects which require participants to assess their part of the project's work in respect to export control requirements. Due to the unclear definition of basic scientific research we currently have 28 different possible interpretations of this exemption.

III. What are possible solutions to the problems faced by research and academia?

It is clear that research and academia do carry responsibility with regard to dual-use and proliferation risks, considering that they conduct research on technologically highly advanced topics and in many cases are publicly funded. Academic freedom should not lead to a general exemption for research and academia from complying with rules and regulations regarding dual-use items.

Guidelines accompanied by examples clarifying in which cases information that compose no proliferation risks are in the public domain and therefore can be published or are generally accessible to the public by unlimited distribution at conferences. This has been proven as a feasible way to make the laws and regulations governing dual-use goods easier applicable and thus, better understood by the research community.

Furthermore, clarification on what is considered to be basic scientific research is needed and it should be made clear that its definition must be always applied in line with the dual-use regulations primary objective: the limitation of proliferation risks.

The above mentioned would lead to a guideline that uses points of reference for assessment such as Technology Readiness Levels (TRL) or providing a broader definition of basic scientific research, clarifying how basic scientific research corresponds with other means of research such as applied research and under what circumstances research in the field of applied sciences could be considered basic scientific research and fall within the scope of this exemption.

Eventually, an easily applicable set of guidelines would also increase the awareness among researchers for proliferation risks and possible critical research matters as well as allow an efficient assessment of one's own research.

The current Dual-Use Regulation states guidelines to be an essential element for an effective export control regime - Recital (7). And the proposal for a new Dual-Use Regulation even takes the control regime a step further and specifically states that an

outreach to the private sector is an essential element for an effective export control regime - Recital (25). However the outreach should not be limited to the private sector but should also include research and academia.

The Wassenaar Arrangement itself has stated in its 'Compendium of Best Practice Documents' that participating states of the Wassenaar Arrangement support the specification in national laws and regulations that controls on transfers do not apply to information in the public domain or to basic scientific research.

Implementation was approached differently by the participating states. Some countries such as Australia or the United States have created an extensive compilation of guidelines and examples, to help with the application of dual-use laws and regulations. They might serve as an example on how the implementation of the Wassenaar Arrangement can be complemented by guidelines and examples.

Many problems faced by research and academia can already be tackled by providing clear and easily applicable provisions, definitions and guidelines. Therefore, it is crucial to develop those provisions, definitions and guidelines together with research and academia upon entry into force of the new Dual-Use Regulation. We see the current legislative process for a new Dual-Use Regulation as a request to review the above mentioned definitions, consult research and academia, and add clarity assisting both the researches and the regulatory bodies who must interpret and apply the regulations.