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Subject: Comment on Advance Notice of Proposed Rulemaking Regarding Review of Controls for Certain Emerging Technologies

Reference: 83 Fed. Reg. 58201 (Nov. 19, 2018); RIN 0694-AH61; Docket # 180712626-8840-01

The Council on Governmental Relations (COGR), Association of American Universities (AAU), Association of Public and Land-grant Universities (APLU), American Council on Education (ACE), and Association of American Medical Colleges (AAMC) write in response to the U.S. Department of Commerce Bureau of Industry and Security (BIS) Advance Notice of Proposed Rulemaking (ANPRM) regarding the Review of Controls for Certain Emerging Technologies. Together, COGR, AAU, APLU, ACE and AAMC

represent all major research universities and medical schools in the United States. Our associations welcome the opportunity to comment on the ANPRM and appreciate the effort the administration is undertaking to draw upon all available government, industry, and academic resources to identify and then propose appropriate controls on uncontrolled emerging technologies essential to the national security of the United States, consistent with the standards set forth in the Export Control Reform Act of 2018 (ECRA).

BACKGROUND:

The academic research community is increasingly global. U.S. universities attract and educate the best and brightest international students, employ leading foreign scholars, foster research collaborations with peers around the world, and support workforce development by developing cutting-edge research that is licensed and commercialized by U.S. companies. Key to these activities is the existence of an open research environment where faculty and students can share information and learn from one another.

Our associations are pleased that the proposed rule explicitly preserves "fundamental research" as defined in Part 734.8 of the Export Administration Regulations (EAR). Our understanding is that the preservation of "fundamental research" means that universities and their researchers will remain free to publish the results of academic research in fields designated for consideration as emerging technologies, so long as that research is conducted without prior notice of restriction on participation in the research activity, or publication of the research results. In defining emerging technologies, the Bureau of Industry and Security (BIS) should preserve the core principle of National Security Decision Directive 189 (NSDD 189) that, to the maximum extent possible, fundamental research should remain unrestricted. BIS must also be careful not to impose overly broad controls on emerging technology areas. Rather, controls should be confined to very specific developmental technologies and technogical components and should be consistent with the positive specific technological parameter-based approach currently widely used in the EAR. Overly broad or vague controls will result in unnecessary regulations that will stifle scientific progress and impede research.

RECOMMENDATIONS:

ECRA 1752(10) requires a robust interagency process to identify emerging technologies of concern and further states that identification efforts should draw upon the resources and expertise of all relevant parts of the U.S. government, industry and academia. ECRA 1758(a)(2) (A)(iv) includes the BIS Emerging Technology and Research Advisory Committee (ETRAC; now apparently changed by BIS to Emerging Technology Technical Advisory Committee (ETTAC)) as a source to identify emerging technologies warranting controls. Our associations strongly endorse the use of the ETRAC/ETTAC for this purpose, especially given that the nature of emerging technologies is such that

those designated for control will need to be regularly evaluated and updated. We further encourage BIS to ensure that the ETRAC/ETTAC involves adequate representation from the academic community. In particular, BIS should assure that ETRAC/ETTAC includes leading researchers with expertise in the emerging technologies under consideration, as well as university officials who are charged with the enforcement of export control regulations. We also support the *ad hoc* participation of academic experts in fields under consideration at ETRAC/ETTAC meetings where sufficient expertise may not exist among the standing academic members of the committee.

BIS requests comments on how the administration should define emerging technologies. We suggest that any definition of emerging technologies be structured around, and bounded by, the statements of policy in ECRA for why the export control system exists and what it is designed to accomplish. A definition of emerging technologies should not include foundational technologies, which, we understand, BIS considers to be mature technologies already in production.

We offer the following proposed definition:

> **"Emerging technologies" are specific core "technologies" in "development" which the Bureau of Industry of Security has demonstrated to be essential to the national security interests of the United States and:**
>
> **(a) are "required" for the "development" of specific and identifiable potential conventional weapons, intelligence collection applications, weapons of mass destruction, or terrorist applications;**
>
> **(b) would provide the United States with a specific and identifiable qualitative military or intelligence advantage;**
>
> **(c) are not available in or otherwise being developed in foreign countries; and**
>
> **(d) are not within the scope of any existing multilateral controls.**
>
> **Note 1: A "technology" must not be identified or controlled as "emerging" unless it is within the scope of policy statements in ECRA for which "technologies" should be controlled for export. In particular, a "technology" must not be identified as "emerging" if a unilateral export control over it would:**
>
> **(a) harm domestic research on the identified "technology;"**

(b) be ineffective at preventing countries of concern from developing it indigenously or otherwise acquiring comparable "technology" from third countries;

(c) be imposed without a full consideration of the impact on the United States' economy of such a control;

(d) be of a type that is not likely to be considered acceptable by the multilateral regime allies or that is inconsistent with the standards for the types of controls that are subject to the multilateral regimes; or

(e) apply to "production" "technology" or any aspect of "use" "technology" for "items" in "production."

Note 2: This definition does not apply to an exporter's determination of whether a "technology" is "emerging." Rather, it governs BIS determinations regarding whether a specific "technology" should be added to the Commerce Control List as an "emerging technology."

The elements in each part of this proposed definition are taken from the standards in ECRA and BIS's notice. To avoid confusion in its application, the definition also uses as many of the existing EAR definitions and concepts as possible. Therefore, we request that it be included as part of any rule proposing new controls over "emerging technologies."

Any new controls should also be consistent with the existing Export Control Classification Number (ECCN) structure and EAR definitions, such as "technology," "development," and "required." These elements of the regulations have been finalized and refined over decades of interaction with industry and our regime counterparts. Although complex, they are nonetheless a well-tested and coherent structure of controls and definitions. They allow the U.S. government to accomplish its national security objectives in a way that domestic and foreign industry, as well as the academic community, can understand and comply. Moreover, the structure and definitions largely prevent inadvertent over-controls of technology, or portions of technology, that can merely be capable for use with a sensitive item but do not warrant control because they are common to non-sensitive applications.

Our associations strongly urge BIS to exclude from the definitions, and all other technology control efforts, requirements that are open-ended or difficult to comply with, such as setting a control parameter using the phrase "capable for use with." For export controls to further their national security objectives, U.S. exporters and foreign re-exporters with a wide range of experiences will need to be able to understand the control parameters in order to be able to comply with them. If parameters require a level

of knowledge about national security concepts or military applications not generally available to the public, then the control will not be effective.

Additionally, not all controls need to be imposed for exports and re-exports worldwide. BIS has complete discretion to impose unilateral controls on exports and re-exports to specific countries or country groups. Thus, the impact of potential new controls can and should be tailored to specific issues posed by specific countries.

CONCLUSION

In conclusion, based on the foregoing, we respectfully request that the administration not propose or otherwise implement unilateral controls pursuant to ECRA section 1758 if governmental, industry, or academic commenters provide sufficient information that a new control on a specific category or type of technology:

1. would not be essential to the national security interests of the United States based on the notice's description of what constitutes an essential national security interest;

2. is available or is being developed outside the United States;

3. would harm research activities on the technology in the United States;

4. would fail to prevent a country of concern from developing or otherwise acquiring the technology;

5. lacks full consideration of the economic and scientific impact such controls would have on the ability to conduct critical research in emerging and promising technical areas;

6. is not tailored to focus on core technologies;

7. is not limited to protecting specific United States national security interests; or

8. is of a type that is not likely to be considered acceptable to the multilateral regime allies or is inconsistent with the standards for the types of controls that are subject to the multilateral regimes.

If, on the other hand, government, industry, and academic experts agree and provide reasonable support for why and how a proposed new control meets each of the above-referenced elements in ECRA, then we respectfully request that such control be imposed in a transparent, well-supported manner, and with adequate licensing and other resources to address the new obligations. Additionally, any such controls should be limited to what is necessary to address the specific national security concern for the

specific technology. We also request that BIS seek to assure timely and robust feedback in any subsequent rulemaking with regard to specific proposed controls.

We realize the standards in this summary of our requests may appear to set a high bar for new emerging technology controls. These standards, however, are no more than a distillation of the relevant standards in ECRA. We believe that Congress created them because unilateral controls should be rare to respond to specific or emergency situations essential to our national security. All other controls and situations are better addressed through the well-tested process of working together with our multilateral regime partners to develop and implement multilateral controls to (1) enhance their effectiveness and (2) keep the United States on a level playing field with such countries, particularly with respect to commercial technologies.

* * *

Thank you again for providing this opportunity for us to provide feedback on how to best identify emerging technologies that are essential to national security and that are not currently controlled but should be pursuant to the standards in ECRA. If you have any additional questions or would like to discuss these comments further, please contact one of us using the contact information provided above.