



Before the
Bureau of Industry and Security
U.S. Department of Commerce
Washington, D.C.

In re:

Identification and Review of Controls for Certain
Foundational Technologies

Docket No. 200824-0224
85 FR 52934

**COMMENTS OF
INTERNET ASSOCIATION**

Internet Association (IA)¹ appreciates the opportunity to provide comments on behalf of the association and its members in response to the Bureau of Industry and Security (BIS) advanced notice of proposed rulemaking, *Identification and Review of Controls for Certain Foundational Technologies*, 85 FR 52934 (August 27, 2020) (the “ANPRM”). IA is the only trade association that exclusively represents U.S.-based global internet companies on matters of public policy. Our mission is to foster innovation, promote economic growth, and empower people through the free and open internet. Our members believe that a free and open internet is essential for individuals’ access to information and a competitive economy, and is also an important component of an effective United States foreign policy and national security strategy.

Recommendations

In the ANPRM, BIS requested input on “identifying technologies classified on the [Commerce Control List (“CCL”)] at the AT level or as EAR99 for which an export license is not required for countries subject to a U.S. arms embargo that also warrant review to determine if they are foundational technologies essential to the national security.” New restrictions on technologies subject to AT controls have the potential to damage the U.S. economy and impair the U.S. industry’s ability to develop or maintain technological leadership concerning any technology identified as “foundational.” Such controls will not be more effective than existing controls in limiting the global development and proliferation of items in the Target Categories that are already globally ubiquitous.

IA urges caution in imposing additional licensing requirements on items that have previously been determined by the U.S. Department of Commerce as part of its standard rulemaking process to warrant only AT level controls. Such determinations, which were the product of careful interagency analysis, have become deeply ingrained into export compliance policies around the world. The “foundational technology” concept should not be a basis for a wholesale reappraisal of longstanding regulatory assessments.

BIS should consider whether it has already satisfied its legislative mandate under the Export Control Reform Act (ECRA) by imposing new controls on items in the Target Categories.² IA views the statutory requirements to identify “foundational technologies” as inextricably linked to the requirement to identify “emerging technologies.” The relevant statutory language calls for the establishment of a “regular, ongoing interagency process to identify emerging and foundational technologies.”³ The statute does not contemplate two separate processes for identifying emerging technologies and foundational

¹<https://internetassociation.org/our-members/>

²Controls imposed under [15 C.F.R. 744.21, Supplement No. 2](#) to Part 744; Supplement No. 4 to part 744, Footnote 1

³50 USC 4817(a)(i)



technologies. The implication is that emerging and foundational technologies should be identified together.

This reading of the statute is consistent with what IA believes to be the most significant national security concerns around mature technologies, namely that technologies previously determined to not warrant heightened licensing requirements based on the known uses at the time of the assessment may find new purposes as critical enablers of emerging technologies.

Rather than trying to identify foundational technologies in a vacuum, the Commerce Department and other relevant agencies should first focus on identifying emerging technologies warranting heightened multilateral controls. Once these emerging technologies are identified multilaterally, the Commerce Department and its counterparts—with assistance from the advisory committees and other input from industry and academia—should identify existing, fully-mature technologies that, because of novel uses, are critical to the development or production of the emerging technologies. Only such fully-mature technologies with novel uses critical to emerging technologies should warrant control as foundational technologies.

These foundational technology controls should be narrowly scoped to the uses of the technology that are relevant to the emerging technologies. Foundational technology controls should not be applied to the entire corpus of technical data generated for dilution refrigeration technologies over the decades that this technology has existed.

As required under the statute the analysis cannot end at this point. Even if a potential foundational technology is identified on the basis suggested above, controls should not be imposed if the foundational technologies are generally available in foreign countries or the controls would harm the development of such technologies in the U.S.

The status of the development of foundational technologies in the U.S. and other countries would vary depending on the specific technology meeting the criteria of the “foundational technology” test described above. Whether a given technology is being developed within the U.S. or not, “foundational technologies” should be viewed as distinct from “emerging technologies” and represent fully mature and well-understood technologies.

IA believes that at a minimum, BIS should do the following before placing additional controls on an item as a “foundational technology:”

- 1) Confirm that the item provides the U.S. with a specific and identifiable qualitative military advantage;
- 2) Confirm that the item is essential to the national security interests of the U.S. as demonstrated through the identification of the specific weapon, military, or intelligence application to which the item is essential;
- 3) Determine, through a formal foreign availability assessment by BIS, that the item is not produced or available in foreign countries.

Even under the definition, the U.S. is not likely to see any gains in national security concerning China through the imposition of additional export controls on “foundational technology” that has not already been achieved through the U.S. government’s broad restrictions on U.S. companies’ ability to export any items subject to the EAR to companies like Huawei, HiSilicon, Hikvision, and Dahua, the additional limitations BIS has placed on Huawei’s ability to obtain certain items through the expansion of the foreign direct product rule, and the expanded restrictions on exports for military end uses and users in China, Venezuela, and Russia.



Regarding the impact specific foundational technology controls may have on the development of such technologies in the U.S., it is essential that BIS not impose controls on items having substantial foreign availability. The free exchange of items in the Target Categories drives economic growth in the U.S., supporting hundreds of thousands of U.S. jobs and the U.S. export base. Any additional export controls on these technologies, unless carefully and narrowly drawn and demonstrably essential to U.S. national security interests, will hurt U.S. companies and competitiveness globally. Controls, especially unilateral controls, risk-reducing U.S. companies' exports and sales to global customers, stifling their innovation and technological advancements, impeding the adoption of U.S. technologies globally, and restricting U.S. companies' access to the best and brightest scientists and engineers working on the next generation of these technologies. These grave consequences would put the U.S. at a competitive disadvantage and result in the loss of high-paying U.S. jobs and an increase in the U.S. trade deficit.

U.S. companies and institutions must remain able to share items in the Target Categories globally without unnecessary friction and compliance overhead so that developers and companies around the world can fully utilize U.S. technology and incorporate it into their products and services. The alternative would be excluding U.S. technology from their products globally and embracing technology developed by our economic rivals. The ability for U.S. companies to continue using U.S. technology is necessary to facilitate the global prevalence, leadership, market share, and mindshare of the U.S. industry and technology.

Before proceeding with any end-use or end-user controls related to foundational technologies, IA would encourage BIS to develop workable and scalable solutions since controls that cannot be easily implemented by industry do not serve to achieve BIS's policy objectives.

Deemed export requirements would greatly harm the continued development of "foundational technologies" in the U.S. IA strongly recommends against any deemed export or deemed reexport controls on the Target Categories, and encourages BIS to consider whether companies' security and intellectual property-focused protections would supplant or exceed any benefits that could be gained through deemed export requirements.

To this end, IA suggests that Commerce explore the potential for use of novel technological solutions to more nimbly implement end-use and end-user controls on the most sensitive technologies. These could include software- and/or hardware-based tools to enforce and monitor government-imposed restrictions on users and uses, and to secure the infrastructure surrounding these technologies. Such solutions are already used in familiar settings such as app stores, in which operators use technology-based permissions to determine whether apps fulfill policies on privacy, security, and other requirements, as well as the encryption modules in secure payment systems. Such a digital transformation of export controls could make them more effective, more dynamic, and more comprehensive while preserving U.S. technological leadership.

Although the U.S. has traditionally been the leader in many technologies covered by the Target Categories, these technologies are now globally ubiquitous and other countries are steadily developing and producing these technologies alongside the U.S. To stay competitive in the development and implementation of technologies in the Target Categories, U.S. companies and research organizations require access to the most talented scientists and engineers, regardless of location or nationality. These talented individuals want to work and collaborate with the best scientists and engineers from around the world in the least restrictive regulatory environment, and without worrying about whether an export license is required to discuss with a colleague. Unilaterally controlling the export of any technologies in the Target Categories would restrict only U.S. companies' access to this global talent, while foreign companies would be able to attract the best talent and leverage foreign contributions without being subject to these restrictions. This would damage the ability of U.S. industry to compete in an open global



marketplace for the best people, undermine U.S. technological leadership, and negatively impact the U.S. economy.

More generally, broad and overly burdensome controls restricting U.S. companies from full participation in the vibrant global exchange of technologies would undermine U.S. technological leadership even beyond any items identified as “foundational technologies.” Other countries’ technologies would inform global standards and see adoption in global products and services. U.S. companies would lose both the ability to influence these standards as well as access to global export markets for their products and services. Innovators or startups developing the next generation of “foundational technology” would elect to develop somewhere outside the U.S. free of these restrictions, taking high-quality U.S. jobs with them. To ensure that export controls do not block U.S. economic and technological growth and leadership, BIS should consider whether existing export controls, including list-based controls such as the BIS Entity List and OFAC’s SDN list, satisfy the national security goals of any contemplated regulations on “foundational technology,” and, at most, should only impose narrowly tailored controls that are agreed upon at a multilateral level, are demonstrably essential to U.S. national security interests (per the definition proposed above), and provide exemptions that allow these technologies to continue to move freely amongst U.S. companies, their non-U.S. subsidiaries, and the employees of these companies inside and outside of the U.S.

If the U.S. imposes controls on “foundational technology,” whether unilateral or multilateral, it seems likely that, for example, the Chinese government will impose similar controls in retaliation. We have already seen a move to this effect in the form of China’s new Export Control Law.⁴ Multinational companies in the U.S. and other countries benefit from access to Chinese technology. Escalating the ongoing trade war by imposing new restrictions on exports of basic technologies to China and any retaliatory action by the Chinese government will hurt U.S. companies, the U.S. economy, and ultimately diminish the U.S. as a global technology leader.

Conclusion

New restrictions on technologies based on their “foundational” status are unnecessary and will be ineffective in limiting the global development and proliferation of these already-ubiquitous items. If any new restrictions are required for national security reasons, BIS and/or OFAC should use their existing authority to designate entities that threaten U.S. national security under the BIS Entity List or as SDNs. If BIS does opt to place additional restrictions on specific technologies, BIS should ensure that there are license exemptions so that these technologies can continue to move freely between and amongst U.S. companies, their overseas subsidiaries, and foreign national employees in the U.S. and abroad.

Internet Association strongly believes that a free and open internet, and U.S. technological and economic leadership, play a critical role in supporting U.S. national security and foreign policy objectives. These interests require that the U.S. take a nimble and global approach to internet-related technological development, which weighs heavily against overly restrictive export controls. IA looks forward to continued engagement and collaboration with other stakeholders in this rulemaking process.

⁴ <https://www.reuters.com/article/china-parliament-exports-idUSKBN27305Y>