Motor & Equipment Manufacturers Association
1030 15th Street, NW Suite 500 East Washington, DC 20005
Tel 202.393.6362 Fax 202.737.3742 www.mema.org

January 10, 2019

VIA REGULATIONS.GOV

Mr. Matthew S. Borman
Deputy Assistant Secretary for Export Administration
U.S. Department of Commerce
1401 Constitution Avenue, N.W.
Washington, DC 20230

Re: Advance notice of proposed rulemaking (ANPRM): Review of Controls for Certain Emerging Technologies
[BIS-2018-0024]

Dear Deputy Assistant Secretary Borman:

The Motor & Equipment Manufacturers Association (MEMA) respectfully provides the following comments regarding the Advanced Notice of Public Rulemaking (ANPRM) "Review of Controls for Certain Emerging Technologies," 83 Fed. Reg. No. 223, p. 58,201, published November 19, 2018 (BIS-2018-0024).

MEMA represents 1,000 vehicle suppliers that manufacture and remanufacture new original equipment and aftermarket components and systems for use in passenger cars and heavy trucks. Our members lead the way in developing advanced, transformative technologies that enable safer, smarter, and more efficient vehicles, all within a rapidly growing global marketplace with increased regulatory and customer demands.

Vehicle suppliers are the largest sector of manufacturing jobs in the United States, directly employing over 871,000 Americans in all 50 states plus the District of Columbia. Together with indirect and employment-induced jobs, the total employment impact of the motor vehicle parts manufacturing industry is 4.26 million jobs. Nearly $435 billion in economic contribution to the U.S. GDP is generated by motor vehicle parts manufacturers and their supported activity. In total, motor vehicle parts suppliers contribute more than 77 percent of the value in today's vehicles. MEMA members utilize several of the technologies identified in the ANPRM and will be impacted by export controls on emerging technologies.

MEMA appreciates that many emerging technologies have non-commercial uses; however, MEMA asks that the Bureau of Industry and Security (BIS) take into consideration the extensive commercial usage of these technologies in the motor vehicle industry. Curtailing the motor vehicle supplier industry from exporting certain technologies will severely limit the industry's competitive advantage in the global market. In 2017, vehicle part exports were approximately $56 billion. Further, as discussed below, numerous non-U.S. companies have developed or are developing similar commercial applications using technologies listed in the ANRPM. Critically, many of these non-U.S. companies have significant investments and manufacturing facilities in the United States. Controls on technology used in existing and developing commercial automotive applications may

create a higher risk of deemed exports and affect research, development, and manufacturing in the United States, ultimately discouraging foreign investment in the U.S. motor vehicle industry.

MEMA surveyed its 1,000-plus members to identify which emerging technologies listed in the ANPRM may affect development and sale of supplier products. Based on survey findings, MEMA provides recommendations on defining and identifying emerging technologies below and asks BIS to consider the current and future commercial application of these technologies in motor vehicles and mobility parts.

Technologies Relevant to Motor Vehicle Parts Manufacturers

MEMA's members reviewed the possible categories of emerging technologies in the ANPRM and identified those most relevant to the motor vehicle supplier industry, including identifying the commercial uses of the technologies and non-U.S. companies developing the same commodities using these technologies. The table below summarizes the most pertinent technologies, the percent of members affected and the commercial supplier uses of the technologies.

Technology	% of survey respondents affected	Motor vehicle industry uses
Artificial and machine learning technology, including neural networks and deep learning, reinforcement learning, computer vision, expert systems, speech and audio processing, natural language processing, AI cloud technologies, and AI chipsets	68%	Automated driving platforms and systems; sensors and systems that perform automated driving functions, including passenger recognition, speech recognition, driver distraction, thermal comfort, electric powertrains; HVAC systems, electronic domain controller systems, engines, interior products
Position, navigation, and timing technology	63%	Automated driving platforms and systems; smart control systems such as utilizing weather for predictive comfort settings; driver assistance systems; navigation and infotainment systems; apps including those that monitor driver behavior, routing, or perform coaching, perform insurance assessment, ride-share and delivery; engine, electronic domain controller systems; interior products
Microprocessor technology, including systems-on-chip and stacked memory on chip	71%	Automated driving platforms and systems; in glass displays, new and remanufactured control modules; HVAC systems; refrigeration products; electronic domain controller systems
Data analytics technology, including visualization, automated analysis algorithms, and context-aware computing	64%	Automated driving platforms and systems; HVAC systems; data systems for fleets; engines; insurance assessments; connection

		and interface of vehicles to Internet of Things (IoT)

To a lesser extent than the above-listed technologies, members also identified logistics technology, robotics, additive manufacturing, and advanced materials as technologies used by the motor vehicle supplier industry.

Recommendations

To alleviate the impact of controls on emerging technologies on the motor vehicle supplier industry, MEMA asks BIS to consider the following recommendations:

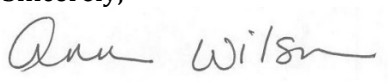
- **Foreign availability:** BIS should consider the extensive existing and developing research and foreign availability of technologies in determining what constitutes an emerging technology. While some items on the ANPRM list, like quantum computing, may require broad controls, other technologies such as position, navigation, and timing technologies should be defined narrowly, excluding such technology that is already in use for commercial purposes. For example, several of the technologies are used and expected to be used in automated driving platforms and systems in commercial vehicles, which is an immediately foreseeable global market. Several non-U.S. companies, including companies in China, are already using some of the technologies for advancements in automated driving platforms and systems, and U.S. companies should be enabled to compete with these non-U.S. companies. Restricting U.S. companies from the ability to export the technology (including deemed exports) or products of technology to support automated driving platforms and systems does not meet the goal of promoting national security if the technology is already widely available and in use.
- **Future availability:** In identifying emerging technology, BIS should take into account the time required from identification of controls to actual implementation. Due to the quickly moving landscape of development and availability of technologies, BIS should define any emerging technologies to be controlled with an eye towards excluding any technologies that will likely be available and used by foreign companies in the short-term future, such as within two to five years. To lessen the impact on the supplier industry's global competitiveness, BIS should structure definitions of emerging technology in a way that takes into account expected development and commercial application by foreign companies. For instance, MEMA expects that the use of artificial and machine learning technology in the automotive industry will increase dramatically within the next two years to fill market expectations related to systems that perform autonomous driving functions. Similarly, data analytics technologies may be used by the commercial automotive parts industry to interface with the IoT and glean benefits from this intersection, including increasing safety.
- **Collaborations and R&D already in progress:** Many automotive parts companies have a global presence, with subsidiaries and affiliates in and outside the United States. In the normal course of business, intercompany communications and data transfers are frequent and can be both intentional or inadvertent. Further, related companies often work collaboratively, particularly in the case of research and development (R&D). As discussed, in identifying emerging technology, BIS should take into account emerging technologies that are already in development for commercial end uses. Strict controls may limit U.S. subsidiaries and affiliates (or even U.S. parent companies) from ongoing and future

collaboration and R&D with sister companies. BIS should also consider that many of these entities have non-U.S. person employees and visitors, potentially triggering deemed exports. If technology affecting in-progress commercial R&D is controlled, BIS should provide a license exception to allow transfers to foreign affiliates similar to 15 C.F.R. §740.9(a)(10), "Temporary imports, exports, reexports, and transfers (in-country)." This section authorizes temporary exports to a U.S. person's foreign subsidiaries, affiliates, or facilities abroad for certain purposes. In addition, any implementation of new controls should provide a delayed enactment date to allow companies to submit and obtain licenses permitting them to continue in-progress work with non-U.S. subsidiaries and/or affiliates and non-U.S. employees.

- **End uses or ultimate functionality:** BIS should consider defining emerging technologies in terms of potential end uses or ultimate functionality rather than the technologies themselves. Many of the technologies on the ANPRM list have or could have military end uses and as such necessitate controls. MEMA recognizes that parameters of emerging technology are difficult to identify, but it is possible to define technologies to be controlled in terms of their ultimate functionality or end uses. Rather than potentially controlling technology that has clear future application in commercial automotive applications, BIS should work with industry to limit emerging technology controls to clearly defined technical parameters that will enable specific military or intelligence functions that may impact national security.
- **Use of license exceptions:** In the event that BIS defines and/or controls emerging technologies in a broad manner, BIS should create license exceptions for the supplier industry that will enable the sharing of emerging technology with non-US employees in the United States, subsidiaries outside the United States and with companies headquartered in major U.S. allies. In this regard, BIS may wish to consider license exception ENC, 15 CFR 740.17(a), as a potential model.

On behalf of its members, MEMA respectfully requests that BIS take into consideration our recommendations regarding limitations on defining emerging technology. As is evident from the above, how BIS defines and ultimately controls emerging technologies will significantly impact the U.S. motor vehicle supplier industry and its ability to compete in the global market. As BIS is developing and implementing rules on emerging technology, please consider MEMA a resource on the advanced technology work being done in the motor vehicle supplier industry. Please contact Catherine Boland, MEMA vice president, legislative affairs (cboland@mema.org or 202-312-9241) with any questions you may have.

Sincerely,



Ann Wilson
Senior Vice President, Government Affairs