



Comments of the
Motor & Equipment Manufacturers Association
to the
U.S. Department of Commerce
on the
Request for Information; Incentives, Infrastructure, and Research and
Development Needs to Support a Strong Domestic Semiconductor Industry
Docket Nos. DOC–2021–0010; 220119–0024
March 25, 2022

The Motor & Equipment Manufacturers Association (MEMA)¹ submits the following comments regarding the Request for Information from the U.S. Department of Commerce (Department or DOC) regarding “Incentives, Infrastructure, and Research and Development Needs to Support a Strong Domestic Semiconductor Industry” published January 24, 2022.²

Introduction

MEMA and its members welcome that the Department is gathering information on these vital issues anticipating quick passage and implementation of the “Creating Helpful Incentives to Produce Semiconductors for America (CHIPS) Act.” The consensus support of the Congress and the Biden Administration of full funding of \$52 billion, including \$2 billion guaranteed to mature nodes like those used in the motor vehicle sector, is also impressive to MEMA members.

Quick enactment of the CHIPS Act as part of broad national competitiveness legislation would provide some supply chain relief and help avert future crises for a broad range of manufacturing sectors. A focus on legacy or mature node chip production is appropriate and key to the success of the CHIPS Act for American manufacturers. Like the DOC, MEMA is optimistic the Congress will pass this broad measure in the first half of 2022 and appreciates that, once enacted, the Department plans to take immediate action to implement it.

More generally, MEMA believes in fostering greater semiconductor supply chain transparency as well as motor vehicle and parts sector dialogue with semiconductor manufacturers. Continued Department evaluation of legacy chip production needs and aggressive advocacy with semiconductor suppliers are vital. Given the importance of the motor vehicle and parts sector to the manufacturing industrial base and its vital role in national security and defense, a focus on legacy chip production is warranted.

¹ MEMA represents its member companies through its four divisions: Automotive Aftermarket Suppliers Association (AASA); Heavy Duty Manufacturers Association (HDMA); MERA - The Association for Sustainable Manufacturing; and Original Equipment Suppliers Association (OESA).

² 87 Fed. Reg. at 3497.

In fact, given that \$52 billion of taxpayer money is on the line, production of the full range of chips based on the benefit to the overall economy must be required, and overall market needs must be continually evaluated and reinforced by the Department. The semiconductor industry should not be able to steer allocation of most of the CHIPS Act funds to the most technologically advanced and expensive chips, though design and production of those are also vital to the national competitive position. The needs of manufacturers like motor vehicle component manufacturers must also be met.

Background on MEMA

MEMA represents over 900 vehicle suppliers that develop innovative technologies and manufacture original equipment (OE) and aftermarket components and systems for use in passenger cars and commercial trucks. Vehicle suppliers operate in all 50 states, directly employ over 907,000 Americans, and represent the largest sector of manufacturing jobs in the United States. Direct, indirect, and induced vehicle supplier employment accounts for over 4.8 million U.S. jobs and contributes 2.5 percent to U.S. GDP.³

Across the entire range of new vehicle innovation – from automated driving systems to zero-emission vehicle technologies – vehicle suppliers are leading the way. Vehicle suppliers conceive, design, and manufacture the OE components and technologies that make up more than 77 percent of the value in new vehicles. Additionally, vehicle suppliers also manufacture aftermarket parts and materials for the service, maintenance, and repair of 282 million vehicles on U.S. roadways.

The industry's technology development allows the U.S. to be more innovative and globally competitive, leading the world on the path of enhanced mobility for all citizens. Now more than ever, the vehicle industry is at an inflection point as it moves toward a net carbon neutral future and a goal of zero fatalities with new, cutting-edge powertrain and safety technologies.

Supply Chain and Trade Challenges

Vehicle suppliers face a myriad of current challenges within their U.S., North American, and global operations. These broad risks to motor vehicle parts manufacturers began two years ago with the onset of the COVID-19 crisis and have not abated. They include the continuing acute shortage of vehicle-grade semiconductors, international and domestic shipping delays, U.S. port backlogs, and resulting logistic and component cost spikes. Moreover, increasing broad raw material and input costs as well as shortages of critical minerals, steel and other metals are also adversely impacting the sector.

Recently, the supply chain disputes caused by Russia's invasion of Ukraine is curtailing motor vehicle and parts production in Europe, potentially harming North American production as well. For example, half the global supply of semiconductor-grade neon was sourced from Ukraine. Since neon is a vital gas for legacy and other chip manufacturing, cost pressures on semiconductors for our members are increasing in the U.S. as well as Europe. Most importantly, our members report they are working with their employees in Ukraine to assist with everything from salaries during plant shutdowns to the safe passage for their families to Eastern European NATO nations and beyond.

Even more recently, the earthquake that hit the northeast region of Japan on March 17 suspended production in multiple semiconductor manufacturing facilities. This disruption will continue to constrain and already tight global supply. Like so often in the past two years, just when

³ [U.S. Labor and Economic Impact of Vehicle Supplier Industry](#), MEMA and IHS Markit. February 2021.

the motor vehicle parts sector seems to be regaining production momentum, additional supply chain disruptions surface.

On the trade front, continuing Section 232 steel and aluminum tariffs, and tariff rate quotas (TRQs), as well as broad Section 301 tariffs on imports from China are compounding component and material shortages and increasing prices. MEMA appreciates the partial relief provided by the new TRQs negotiated by the Biden Administration with the European Union (EU) on steel and aluminum, with Japan on steel, and, just recently, with the United Kingdom (UK) on steel and aluminum. MEMA anticipates that further relief opportunities can be broadened to other nations and urges that, ultimately, these Section 232 tariffs are eliminated.

MEMA urges the administration to rapidly establish a rapidly implemented, broad, transparent, and fair exclusion process goods imported from China subject to Section 301 tariffs. MEMA favors the China Section 301 exclusion process language that was added by the Senate to United States Innovation and Competition Act (USICA) in a 91-4 vote in May 2021 and strongly supports the retention of this measure in the final competitiveness bill conference report.

Unfortunately, so far, the Section 301 tariff relief being considered by the Biden Administration is a much smaller scale than what was provided by the Trump Administration. MEMA was pleased that an exclusion process began on March 23 to take effect at USTR when USTR restored 352 of the 549 eligible exclusions. Several of these directly benefited motor vehicle parts manufacturers.⁴ That process should be accelerated until broad legislation to fully restore Section 301 exclusions hopefully passes Congress later this year.

Passage of the CHIPS Act as well as enhancing the overall U.S. supply chain resiliency capacity at the Department to avert future crises are critical first steps in restoring supply chain balance.

Details on the Current State of the Motor Vehicle Part Supply Chain

The state of the motor vehicle parts supply chain is very fragile, with semiconductor supply chain disruptions topping the lists of concerns. According to the fourth quarter 2021 OESA Barometer, pressures on profitability were significant in 2020 and remained so in 2021. "2020 and 2021 production volumes were and are expected to be about 500,000 units below the levels the supply base needs to break-even."⁵

As demand increased and the economy recovered, unlike their OE customers, motor vehicle suppliers continued to experience losses in 2021, because of the supply chain crunch, despite a huge increase in consumer demand. Losses were more acute for smaller Tier 2 and Tier 3 suppliers.

Production shutdowns due to supply chain shortages was the most significant issue facing suppliers in the first quarter 2022 OESA Supplier Barometer.⁶ Component, material and workforce shortages were also identified as significant concerns. Semiconductors are important factors in those areas. In fact, normal operations have been undermined for our members because of supply chain concerns in all three of these top issues. "The myriad of supply chain disruptions and labor constraints continue to disrupt the automotive supply base at a high level."⁷ Supply chain

⁴ 86 *Fed. Reg.* at 56345.

⁵ OESA *Automotive Supplier Barometer Q4 2021*, November 9, 2021.

⁶ OESA *Automotive Supplier Barometer Q1 2022*, March 2, 2022.

⁷ *Ibid.*

challenges are also anticipated to be the number one supplier issue over the next 12 months in the same survey.

Despite all the challenges, suppliers are consistently spending four percent of sales on research and development, which is helpful to future advanced technology improvements. When the most recent OESA Barometer was released in early March it was mostly optimistic about North American motor vehicle production in 2022. “2022 production volumes are expected to return to profitable territory but are shrouded under a veil of uncertainty. The industry expects North American production to reach 15.0 million units, 1.25 million units above median breakeven.”

This projection was before the Ukraine invasion, the resurgence of COVID-19 in Asia, which increased lock downs in China, and prior to the March 17 Japanese earthquake. On March 15, S&P Global Mobility released a projection that North American vehicle production will decline by 480,000 units as part of a global vehicle production projection cut of 2.6 million units from initial 2022 estimates.⁸ Production estimates still barely indicate profitability, but the margins are getting tighter.

These challenges become more acute as you go down the supply chain. To help restore motor vehicle parts sector supply chain resiliency, grants for semiconductor production need to be targeted at semiconductor suppliers who target smaller producers that are barely surviving. Therefore, the Department’s small business CHIPS Act implementation proposals are so important.

Specific Comments on the Commerce Department Request for Information (RFI)

First and foremost, MEMA members appreciate that the Department’s understands that manufacturing for a broad range of semiconductor technologies needs to be encouraged. According to the DOC, the CHIPS Act is “intended to restore U.S. leadership in semiconductor manufacturing by providing incentives and encouraging investment to expand manufacturing capacity for the most advanced semiconductors as well as those of the more mature designs that are still in high demand.”⁹

Specifically, manufacturing of both industrial and consumer goods depends on the availability of legacy chips at reasonable cost. The manufacturing jobs that depend on legacy chips are in large employment sectors like motor vehicles and parts, aerospace, and medical devices. National industrial and defense industrial base needs depend disproportionately on these sectors, which also have very high domestic economic profiles. MEMA appreciates that the Administration understands this overall dynamic.

Growth in semiconductor demand will be exponential in the motor vehicle and parts sector in the next two decades as the nation moves aggressively toward future vehicle technologies. Even prior to the welcome major push by the Biden Administration toward electrification in 2019, the skyrocketing demand for semiconductors in our sector was clear. According to a 2019 KPMG report, “Automotive semiconductor sales were about \$40 billion in 2019. But four trends – autonomy, electrification, connectivity, and mobility as a service (MaaS) – will raise the

⁸ [“S&P Global Mobility Significantly Lowers its Light Vehicle Production Outlook; 81.6 Million Units Expected in 2022”](#) S&P Global Mobility/IHS Markit, March 16, 2022.

⁹ 87 Fed. Reg. at 3497.

semiconductor content of cars by as much as ten-fold.”¹⁰ This, MEMA estimates, (this) could raise automotive semiconductor sales to as much as \$200 billion by 2040.

The fact that the motor vehicle parts sector has more than 900,000 employees and is the largest manufacturing sector by employment, reinforces the need for a dedicated \$2 billion motor vehicle and parts sector legacy chip program contained both in House America COMPETES and Senate USICA legislation. MEMA is concerned that this provision is not mentioned in the RFI, but appreciate that – on numerous occasions – the Department confirmed its understanding of the need for this dedicated funding.

In addition, the eligibility of legacy chip producers for the motor vehicle and parts sector for the broad \$39 billion in grant funding available for the range of semiconductors needs to be affirmed by the Biden Administration, and the Department. In fact, MEMA encourages early acceptance of a legacy chip producer application for that \$39 billion in funding as an appropriate signal to send the U.S. semiconductor and manufacturing communities.

Likewise, the \$11 billion in NIST and DOC research and development programs in CHIPS, including government industry partnerships must be available to mature node producers, including the motor vehicle parts sector.

MEMA urges the Department to support the broadest possible participation in the grant program for legacy chip producers. We appreciate that a January 2022 Biden Administration Factsheet highlighting \$80 billion in planned new U.S. semiconductor manufacturing capacity, noted important legacy chip producers interested in CHIPS Act funding.¹¹ Our members may also want to participate in consortia with their OE customers and semiconductor companies to ensure that grants beyond the \$2b legacy chips program goes to our manufacturing, so we encourage flexible implementation of funding in that regard.

Various semiconductor workforce opportunities are available in both the grand and R&D programs. It is important that semiconductor producers and customers are eligible for those proposals. Special incentives could be provided to Tier 3 and below suppliers.

And most importantly, given the supply chain pressures on our smaller members, all funding should be available for smaller businesses such as Tier 3 and below suppliers in the motor vehicle parts sector. Their economic situation continues to be acute. A robust small business program both to publicize CHIPS Funding and small entity eligibility for grants is vital to the success of this program.

Conclusion

MEMA appreciates the opportunity to provide our views on the CHIPS Act implementation as well as vital background on our vehicle part sector. We have focused on big picture economic benefits of broad availability of CHIPS Act funds for our sector, as well as for manufacturing generally. MEMA is confident that awarding of grants for production of the range of semiconductor CHIPS as well as broad approaches to R&D is the best approach to enhancing our national competitiveness. Please contact Ann Wilson at awilson@mema.org or Bill Frymoyer at bfrymoyer@mema.org if you have any questions about them.

¹⁰ “[Automotive Semiconductors: The New ICE Age](#),” by Scott Jones, KPMG, November 25, 2019.

¹¹ White House Fact Sheet, “[Biden Administration Bringing Semiconductor Manufacturing Back to America](#),” January 30, 2022.