November 8, 2021

The Honorable Gina. M. Raimondo
Secretary of Commerce
U.S. Department of Commerce
1401 Constitution Avenue, N.W.
Washington, D.C. 20230

Re: Notice of Request for Public Comments on Risks in the Semiconductor Supply Chain; Docket No. DOC-21095-0189

Dear Secretary Raimondo,

Continental Corporation ("Continental") is filing these comments in response to the Department of Commerce ("Department"), Bureau of Industry and Security's request for public comments on Risks in the Semiconductor Supply Chain.[1] We support the Administration and Department of Commerce's continued efforts to address critical supply chain issues. Semiconductors are a critical part of the automotive industry supply chain, like other industries. The ongoing shortage has a direct impact on domestic manufacturing operations and is at a pivotal time when the U.S. economy is re-opening. We appreciate the continued engagement and commitment of the Administration and the Department on this critical issue and the opportunity to provide input.

Continental is a global Tier 1 supplier that plays an integral role in the growth and development of the transportation sector. Our 150-year-old company has grown to employ more than 193,000 employees in 58 countries to support motor vehicle production in each regional market. In the U.S., our domestic footprint includes more than 14,000 employees at more than 60 facilities in 26 states. This includes more than 20 R&D and manufacturing facilities directly supporting OEM manufacturing operations in the United States and North America.

In 2020, Continental generated sales of $43.09 billion within its two primary Group Sectors, Automotive Technologies, and Rubber Technologies. Our company designs, develops, and manufactures original equipment parts, components, and systems for use in the production of passenger cars, light trucks, and commercial vehicles. Our automotive portfolio includes a broad range of passive and active safety technologies, vehicle networking, autonomous mobility, advanced connectivity solutions, and highly engineered rubber products.

Continental is part of a vibrant automotive supplier industry that employs more than 907,000 direct U.S. jobs across all 50 States. Collectively, the automotive industry represents the largest manufacturing sector in the United States responsible for $10.3 million jobs that contribute $1.1 trillion to the U.S. economy and represents 5.5 percent of U.S. GDP. Our industry is dependent on healthy domestic and global supply chains to support, and sustain, the largest domestic manufacturing base in the United States.

The semiconductor supply chain is a critical part of the automotive industry, particularly at a time when vehicles are becoming more technologically advanced. The shortage has demonstrated the limits in overall capacity in the semiconductor sector and identified significant risks within the automotive supply chain. Not only for legacy automotive-grade semiconductor products, but the need for more automotive

[1] *Notice of Request for Public Comments on Risks in the Semiconductor Supply Chain.* 86 Fed. Reg. 53031 (September 24, 2021) ("Notice of Request")

capacity to meet the growing demand in vehicles integrating more electronic components for electric vehicles, advanced safety technologies, and intelligent transportation systems.

Prolonged disruptions and limited automotive capacity within the semiconductor supply chain will further impact domestic vehicle suppliers and OEM manufacturing in the United States. Limited production is not the only impact, it will also be a setback to the innovation of transformative safety technologies that enable safer, cleaner, smarter, and more efficient vehicles.

We are supportive of any measure and policy to help increase overall global capacity in the short and long term. This includes support of incentives and programs authorized under the CHIPS for America Act and included in the FY 2021 National Defense Authorization Act. Such programs are essential to addressing challenges identified by the shortage and sustainability of domestic automobile manufacturing. We strongly support the full funding and passage of the CHIPS for America Act.

Continental routinely provides input to our industry trade associations during the development of comments and support those being submitted by the Motor Equipment Manufacturers Association (MEMA). We would like to thank the Secretary for the opportunity to provide input to the Departments request for comments. We support the Administration and the Department in their ongoing work to address critical supply chain issues and welcome the opportunity to continue to be a resource in providing direct feedback during the review process. Should you have additional questions regarding this submission or require additional information, please do not hesitate to contact me at 202-440-1861 or by email at Kirby.Howard@Continental.com.

Attached: Continental's response to multiple questions.

Sincerely,

Kirby Howard

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Response to Questions

a. Identify your type of business and the types of products you sell.

Continental is a Tier 1 automotive supplier that designs, develops, and manufactures parts, components, and technologies to support OEM production of passenger cars, light trucks, and commercial vehicles. Continental produces and supplies up to fifty percent of the content in a vehicle. Collectively, this includes thousands of different products manufactured in volume like vehicles controls, sensors, telematics, radars, braking systems, displays, and more.

b. What are the (general) applications for the semiconductor products and integrated circuits that you purchase?

Continental purchases a range of semiconductor products that vary in size, purity, and device to support the production of parts, components, and technology for active and passive safety systems, vehicle networking, automated driving systems, and advanced driver assistance systems.

c. For the semiconductor products that your organization purchases, identify those that present the greatest challenge for your organization to acquire.

Overall global capacity is in short supply, which continues to impact automotive capacity. Vehicle suppliers use a variety of semiconductor products to manufacture parts and components. The supply chain of legacy semiconductor products ranging between 40nm and 180nm represent a significant portion of the demand needed. In particular, the 55nm and 90nm are currently the most critical capacity needed.

d. What are the primary disruptions or bottlenecks that have affected your ability to provide products to customers in the last year?

The COVID 19 pandemic disrupted supply chains as manufacturing facilities around the world temporary shutdown in Q2 2021. As OEM vehicle production halted, so did our production and the purchasing of goods and materials required to support our operations. During this time, foundries shifted automotive-grade semiconductor production to the consumer product sector to support the growing need for consumer electronics for remote work and home entertainment.

Once vehicle production resumed and ramped up in Q3 of 2021, semiconductor producers were unable to quickly transition due to the required lead time and limited production capacity at foundries. The shortage was further escalated after a series of consequential natural disasters, including a foundry damaged by fire, which created further backorders and bottlenecks in the production of automotive grade semiconductors. This ultimately created significant front-end disruptions in production allocated for the automotive supply chain and led to insufficient capacity available for the manufacture of vehicle parts and components to meet demand for scheduled vehicle production.

e. Is your organization limiting production due to lack of available semiconductors? Explain.

The automotive industry as a whole has had to limit production due to the shortage. Vehicle suppliers like Continental, have been limited in our ability to manufacture parts and components as a result of insufficient automotive grade capacity required to meet originally scheduled vehicle production.

As the shortage continues, the impact of reduced overall vehicle production differs downstream in the automotive supply chain. OEMs prioritized production of certain vehicle models while stopping scheduled production of others as a measure to help mitigate the economic impact of the shortage. Due to suppliers' position in the automotive supply chain, this shift in production to mitigate the impact, does not directly translate to automotive suppliers whose products make up to two-thirds of the value chain of a finished vehicle.

j. <u>What single change (and to which portion of the supply chain) would most significantly increase your ability to purchase semiconductors in the next six months?</u>

More specific to foundry suppliers and the automotive industry, any measure that that would increase overall automotive grade semiconductor share of production from less than 5% share today, to 8-10% share of production in the future, would help significantly. There is specifically a need for more capacity in the legacy nodes ranging from 40nm – 180nm to provide critical relief for supplier manufacturing operations.