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Office of the U.S. Trade Representative, Executive Office of the President  
600 17th Street, N.W.  
Washington, D.C. 20508

**RE: Docket Number USTR-2018-0035, Request for Comments on Negotiating Objectives for a U.S.-European Union Trade Agreement**

**INTRODUCTION**

The Semiconductor Industry Association (SIA) welcomes the opportunity to provide comments on negotiating objectives for a U.S.-European Union Trade Agreement. SIA is the voice of the U.S. semiconductor industry, one of America's top export industries and a key driver of America's economic strength, national security, and global competitiveness. Semiconductors and its value chain are the bedrock of the modern American economy, powering virtually everything digital from cellphones and cars to supercomputers and military systems.

International trade is vital to the U.S. semiconductor industry, and thus we welcome the Administration's decision to enter into negotiations for a U.S.-EU Trade Agreement. Access to global markets has enabled U.S.-based companies to secure nearly half of the \$412 billion global semiconductor market share in 2017. Semiconductors are America's fourth largest export, with a trade surplus of over \$6 billion in 2017.<sup>1</sup> Nearly half of the manufacturing operations of major U.S. semiconductor firms is located here in the United States, across 19 states, directly employing close to 250,000 workers in the U.S. with well-paying jobs.

The United States and the European Union jointly enjoy significant economic clout. The Parties also have historically been leading trade partners in semiconductors. In 2017, the EU was the 6<sup>th</sup> leading destination for U.S. semiconductor exports and the 4<sup>th</sup> leading source of U.S. semiconductor imports. In 2017, total two-way semiconductor trade between the United States and the EU totaled over \$6.5 billion. Furthermore, the European and American semiconductor industries have a close working relationship as evidenced by long standing membership in the World Semiconductor Council (WSC) and Government/Authorities Meeting on Semiconductors (GAMS) – respectively industry and government bodies that further cooperation on policy matters

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<sup>1</sup> Official U.S. government trade data, U.S. Department of Commerce, obtained from the U.S. International Trade Commission, Dataweb: <https://dataweb.usitc.gov/>.

related to the worldwide semiconductor industry. Thus, the Parties have a unique opportunity to promote sound semiconductor policies across the world.

Given the EU's status as a top semiconductor trading partner, and a valued member of the world trading community, a U.S.-EU trade agreement is a valuable opportunity to strengthen and cement global trade rules related to the ICT sector. SIA strongly encourages the U.S. government to prioritize negotiating objectives that strengthen digital trade and combat the rising trend of digital nationalism in 3<sup>rd</sup>-party countries. We offer the below product-specific negotiating objectives, including priorities aimed at digital trade, state-owned enterprises (SOEs), and trade-related intellectual property rights (IPR) issues that impact the semiconductor industry.

## **NEGOTIATING PRIORITIES FOR THE U.S. SEMICONDUCTOR INDUSTRY**

### **I. Ensure access to global markets for innovative encryption products**

Semiconductor-enabled encryption is now used in nearly all commonly used and globally traded ICT products to provide security and protect data. Government restrictions on the use, import, or sale of commercial products with encryption (i.e. import bans, technology mandates, or requirements to transfer or provide access to proprietary information) undermine security and could threaten the large trade flows of semiconductors and other ICT products on the scale of hundreds of billions of dollars. SIA is concerned about encryption-related practices and regulations in some regions that act as non-tariff barriers, such as regulations that directly or indirectly favor specific technologies, block companies from using the strongest available security technologies in the marketplace, or force disclosure of sensitive information.

We recommend that all U.S. trade agreements contain specific commitments preventing parties from placing discriminatory restrictions on commercial foreign products with encryption. SIA urges the inclusion of encryption disciplines as based on World Semiconductor Council Encryption Principles as follows:<sup>2</sup>

- 1) Parties agree to not prohibit or restrict the importation of commercial products containing cryptographic capabilities;
- 2) With respect to an ICT good that uses cryptography and is designed for commercial applications, Parties agree to:
  - No requirements to transfer or provide access to any proprietary information relating to cryptography, including disclosure of a technology, production process,

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<sup>2</sup> The World Semiconductor Council is a global industry body comprised of the semiconductor industry associations in China, EU, Japan, Korea, Chinese Taipei and the United States. The WSC encryption principles can be found on the WSC website at <http://www.semiconductorcouncil.org/public-documents/public-documents-and-white-papers/>

source code, private key or other secret parameter, algorithm specification, or design details, as a condition of market access.

- No requirements to partner or otherwise cooperate with a domestic entity in order to develop, manufacture, sell, distribute, import, or use a product.
  - No requirements to use or integrate a particular cryptographic algorithm or cipher.
- 3) The Parties agree to transparent and predictable procedures related to the notification, evaluation, approval, or licensing of goods containing encryption technology that are consistent with international standards, norms, and practices (i.e., not discriminatory, unnecessarily trade restrictive or burdensome).

Such disciplines have already been incorporated into the Comprehensive and Progressive Agreement for Trans-pacific Partnership (CPTPP) and U.S.-Mexico-Canada Agreement (USMCA).

## **II. Ensure that state-owned enterprises (SOEs) compete fairly and transparently based on market considerations and without undue government advantage**

SOE activity guided or aided by government influence, rather than by commercial considerations, can cause harmful market and investment distortions. When private companies are competing directly against a government, the playing field is certainly not level. While SOE's are not major consumers of semiconductors in the EU, they are important players in other markets. In particular, the efforts by some governments to provide substantial equity infusions to develop their domestic semiconductor capabilities has the potential to seriously distort semiconductor markets. The inclusion of strong SOE and government assistance disciplines in a future U.S.-EU agreement will send an important message to our other trading partners with large SOEs in the electronics sector that governments cannot use SOEs to discriminate against U.S. companies.

SIA encourages the Administration to prioritize the inclusion of SOE and government assistance disciplines that align with the U.S.-Japan-EU trilateral work to strengthen WTO subsidy rules<sup>3</sup> and the GAMS Guidelines and Best Practices for Regional Support.<sup>4</sup> SIA recommends the Administration prioritize the inclusion of the following key disciplines:

### **A. Raise transparency requirements for provisions of equity capital or non-commercial assistance to SOEs**

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<sup>3</sup> EU-Japan-Scoping Paper, 31 May 2018

<sup>4</sup> In November 2017, the Governments and Authorities Meeting on Semiconductors (GAMS) – comprised of the governments/authorities of China, Chinese Taipei, EU, Japan, Korea, and the United States- established a set of “Regional Support Guidelines and Best Practices,” which are designed to clarify and improve the transparency of semiconductor support programs provided by GAMS regions.

The WTO SCM notification and surveillance procedure has turned into an empty shell. Some countries which practice an unprecedented level of state capitalism notify only a small fraction of their domestic subsidies to the WTO. Many of the notifications that are provided lack key details of the relevant subsidy programs to sufficiently inform other WTO Members or the SCM Committee of their operation and likely trade effects. SIA notes the U.S.-Japan-EU trilateral discussions to strengthen WTO subsidies disciplines and encourages both governments to use this opportunity to establish key transparency provisions, as included in the USMCA.

**B. Clearly define SOEs and “public body” based on an objective control standard**

Most foreign government subsidies for semiconductors of relevant concern are being provided by state-owned banks or government-guided investment funds that may not possess or exercise “government authority,” or perform a “government function,” but are directly or indirectly controlled by the government through majority or minority ownership interests. SOEs and public bodies should be defined on an objective “control” or “power to control,” standard, such as that included in the USCMA. This will prevent SOEs, acting on behalf of governments, to take actions that discriminate against foreign investors and then evade challenge by asserting that they are not covered by the disciplines of the agreement.

**C. Expand prohibited assistance (non-commercial assistance) to more effectively capture assistance that creates excess capacity or leads to market displacement**

The most trade-distorting forms of domestic assistance in the semiconductor industry are production subsidies with the goal of import substitution, particularly those that create or maintain market-distorting excess capacity. Certain governments understand how to craft these harmful assistance programs in a way that may avoid WTO scrutiny under the current SCM agreement, including through equity infusions, loans, and grants. These assistance programs are sometimes referred to as “indigenization” or “nationalization” (which are code words for prohibited import substitution) or “global dominance efforts” (which is a code word for boosting export volumes in international markets). SIA notes that the USMCA prohibits certain forms of non-commercial assistance, including 1) loans or guarantees to an uncreditworthy SOE; 2) non-commercial assistance to an SOE that is insolvent or on the brink of insolvency without a credible restructuring plan; and 3) debt-equity conversions that would be inconsistent with usual private investment practice. SIA recommends that the Administration prioritize the prohibition of these types of non-commercial assistance in a U.S.-EU agreement.

**D. Ensure non-commercial assistance does not cause or threaten to cause adverse effects or injury to a targeted industry**

We encourage the Administration to include criteria for situations in which non-commercial assistance threatens to cause broad-based adverse effects or injury, so that action can be taken *before* a U.S. industry is seriously harmed. The WTO SCM's current provisions regarding "serious prejudice" and "threat" are flawed and ineffective since action typically cannot be taken until an industry is on death's door or until the subsidizing WTO member is irrevocably committed to expanding capacity in a manner that will lead to market disruption. Threat of adverse effects or injury should cover situations in which non-commercial assistance would clearly create or lead to market-distorting excess capacity.

**III. Strengthen trade secret protections**

Trade secrets represent core business assets for semiconductor companies. In our industry, trade secrets include manufacturing know-how, chemical formulations, chip designs, and other proprietary information. Yet despite their tremendous importance, trade secrets remain extremely vulnerable, especially in jurisdictions with weak laws and/or enforcement practices. There are difficulties in enforcing trade secrets especially as related to gathering evidence of theft. Unlike other areas of IP, key evidence of misappropriation is not always readily available, and the burden is on the rights holder to produce such evidence, particularly with respect to inevitable disclosure when an employee departs one entity to work for a competitor. There are also difficulties in enforcing trade secrets. Enforcement against the third-party inducer (the hiring entity of a departed employee) is often difficult and remedies against the ex-employee are often inadequate. Also, sanctions are often lenient and thus do not act as a deterrent.

More problematic is the misappropriation of trade secrets enabled or encouraged as a result of government industrial policy. For example, China provides its domestic semiconductor industry, including SOEs, with massive subsidies and establishes specific technology development goals. While some Chinese semiconductor companies seek to develop technology by legitimate means, other Chinese state institutions, firms, and/or associated individuals may be enticed to illegally acquire or misappropriate technologies as a short-cut to achieving industry development goals and compete in the global marketplace. There have been numerous publicly reported instances in which individuals employed by Chinese state-owned firms and/or their partners/affiliates have chosen to steal or misappropriate intellectual property from their previous employer.<sup>5</sup>

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<sup>5</sup> Authorities Bust Group Stealing Win Semiconductors Trade Secrets. Focus Taiwan, November 6, 2015 [https://www.ectimes.com/document.asp?doc\\_id=1331144](https://www.ectimes.com/document.asp?doc_id=1331144), Samsung Electronics Executives Pass on Core Technology. SBS News, September 22, 2016: <http://v.media.daum.net/v/20160922211514100> (Korean).

Another concern is the implementation by some governments of overbroad certification systems and other regulatory schemes that require the unnecessary disclosure of trade secrets and other IP as a condition of market access. The risk that the required sensitive information will leak to domestic competitors is compounded by the reality that many governments have inadequate safeguards to protect such information and some of those same governments desire increased technology transfer from developed to developing countries

SIA takes note of the recent actions by the Department of Justice and the Department of Commerce to address the misappropriation of trade secrets in the semiconductor industry.<sup>6</sup> We also applaud the strong trade secret disciplines in the USMCA. We call on the Administration to maintain a strong focus on the misappropriation of trade secrets by including strong protections in a U.S.-EU Trade Agreement. Our specific recommendations are as follows:

- (1) Include the application of robust criminal prosecution and penalties for trade secret theft, including penalties for government officials who wrongfully disclose trade secrets
- (2) Ensure stronger confidentiality safeguards for trade secrets during litigation proceedings
- (3) Ensure enhanced remedies for trade secret theft, including compensatory damages
- (4) Ban excessive or discriminatory licensing conditions that dilute the value of trade secrets
- (5) Ban the forced disclosure of source code, or an algorithm embedded in that source code, as a condition of market access.

#### **IV. Prevent forced localization of digital infrastructure and technology transfer**

Governments are increasingly using “forced localization” tactics to advantage domestic companies and/or force foreign investors to use domestic technology, transfer their own technology, localize data storage and processing, or build expensive infrastructure in a region as a condition of market access. These rules raise costs, distort markets, reduce global interoperability, and increase the risk of unauthorized disclosure or theft of IP. SIA applauds the strong digital trade outcomes incorporated in the USMCA to counter these measures and encourages the Administration to prioritize similar disciplines in the U.S.-EU negotiations - and all future U.S. trade agreements - to protect and strengthen digital trade. Specifically, the Parties should agree to prohibit:

- local content requirements (the requirement to purchase or use local technology in products/services)

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<sup>6</sup> DOJ has announced a new initiative to combat IP theft from China, see <https://www.justice.gov/opa/speech/file/1107256/download>, and Commerce has recently taken action against one Chinese state-owned semiconductor company for using misappropriated technology in the development of its own products. See 83 Fed. Reg. 54,519 (Oct. 30, 2018).

- technology transfer requirements (the requirement to transfer technology, production processes, or other proprietary information such as source code) as a condition of market access
- technology/infrastructure localization requirements (the requirement to build technology infrastructure, such as data storage centers, within a country's borders)

## **V. Promote Voluntary, Market-led, International/Global Standards**

Major convergence of the U.S. and EU standards systems is neither likely nor necessary to avoid many negative trade impacts. The Parties, however, should pursue commitments to better align ICT standards to not only facilitate trade in ICT goods and reduce the costs associated with developing products to meet varying standard specifications in each market, but set a gold standard for the rest of the world.

A number of industries, including ours, are heavily reliant on global standards to ensure the interoperability of hardware and software that make up a multitude of connected digital devices. Standards are an effective and efficient means of achieving legitimate commercial and policy objectives. International or global standards facilitate the diffusion of technology and innovation, and they are becoming increasingly important given the complexity of emerging technologies such as IoT and autonomous driving. Indeed, voluntary and market led global standards are critical to ICT products, and the global digital infrastructure cannot operate without them. A laptop alone is based on more than 500 standards that help its computing and communications functions work seamlessly with other digital devices.

When national standards are developed and applied only within a single market, however, these measures can reduce competition, stifle innovation, create unnecessary technical barriers to trade, and increase costs to consumers with no meaningful increase in the safety or reliability of products. This is particularly true for innovative ICT products and services. For example, Japan's cellular industry became isolated due to over reliance on unique Japanese telecommunications standards, particularly during the 1990s. The inward focus and negative global consequences for the Japanese mobile phone industry have been described as a "Galapagos Syndrome."<sup>7</sup> A U.S.-EU Trade Agreement should affirm the principle that global standards are preferable to domestic standards as they leverage the work and expertise of the global community and ensure broad interoperability.

The agreement also should make it clear, however, that the scope of "international standards" is not limited strictly to standards adopted by the International Electrotechnical Commission (IEC), International Standards Organization (ISO), or International Telecommunications Union (ITU). Clearly, there are many more standard setting organizations

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<sup>7</sup> See, e.g., [http://www.nytimes.com/2009/07/20/technology/20cell.html?\\_r=0](http://www.nytimes.com/2009/07/20/technology/20cell.html?_r=0).

(SSOs) that promulgate international standards.<sup>8</sup> At a minimum, as with the USMCA,<sup>9</sup> a U.S.-EU agreement should adopt the definition of “international standard” so that it includes any standard developed by an international standard setting organization that meets the criteria in Annex 4 of November 2000 TBT Committee Second Triennial Review of the Operation and Implementation of the Agreement on Technical Barriers to Trade (G/TBT/9) (13 November 2000). The U.S.-EU Trade Agreement should commit the Parties to clarify the scope of the TBT definition of international standards, where necessary, so that it is applied in a consistent manner by U.S. and EU authorities.

Lastly, a U.S.-EU Trade Agreement should reaffirm the importance of adherence to the Code of Good Practice (Code) in Annex 3 of the TBT Agreement. Too many WTO members have signed up to the Code and yet fail to abide by its provisions requiring transparency, non-discrimination, and other safeguards in standard setting activities that ensure any standards that are developed serve legitimate purposes and do not stifle trade. Adherence to the Code, particularly its transparency provisions, is especially important in jurisdictions where the government is significantly involved in standard setting because, in such markets, standards can become *de facto* binding.

## **VI. Permanently eliminate duties on electronic transmissions of data, data flows, and digital downloads**

The U.S. and EU have long eliminated tariffs on ICT products and digital products transmitted electronically through their participation in WTO agreements like the Information Technology Agreement and WTO e-commerce moratorium. This duty-free treatment for both tangible and intangible ICT goods has helped ensure the free flow of ICT and digital products across borders, to the benefit of U.S. goods and services exporters of all sizes. However, some governments are challenging the WTO e-commerce moratorium banning customs duties on electronic transmissions, a ban that has been in effect on a rolling two-year basis since 1998. Noting the effort by some governments to let this moratorium expire and establish duty/tariff mechanisms on data flows, we encourage the US and EU governments to establish a clear, unified position supporting duty-free treatment for digital goods (i.e. apps, ebooks, music) by including a permanent commitment to (i) not impose customs duties or fees on trade in electronic transmissions and digital products in a U.S.-EU trade agreement; and (ii) jointly promote that ban to other governments.

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<sup>8</sup> *See, e.g.*, European Communities – Trade Description of Sardines, AB-2002-3, WT/DS231/AB/R (26 September 2002) (Codex Stan 94, developed by Codex Alimentarius Commission of the United Nations Food and Agriculture Organization and the World Health Organization, is an “international standard” for purposes of the TBT Agreement).

<sup>9</sup> *See* USMCA, Art. 11.4.



## **VII. Fight the proliferation of counterfeit semiconductors**

Counterfeits are a recognized problem in the semiconductor industry. Because semiconductors are an essential component in downstream electronic products, the harms from counterfeit semiconductors are disproportionately higher than most other counterfeit products, even where the monetary value of the semiconductor itself may be lower than other types of counterfeits. For example, a \$.50 counterfeit semiconductor can cause a \$500 computer to fail. Additionally, since semiconductors are used in many applications with health and safety implications, the consequences of a counterfeit semiconductor can be costly and dangerous for consumers. There are actual examples of counterfeit semiconductors found in, or destined for, an Automated External Defibrillator (AED), a braking system for high-speed trains in Europe, automotive braking systems and automotive airbag deployment systems, a power supply system used for airport landing lights and automated medication applications, including intravenous (IV) drip machines.<sup>10</sup> The health and safety consequences of using a counterfeit semiconductor that can result in product malfunction are obvious.

SIA recommends that the US and EU commit to fighting the phenomenon of semiconductor counterfeiting, and intensify the implementation of IPR enforcement measures, including information sharing activities, aimed at combatting the trafficking of counterfeit semiconductors.

## **CONCLUSION**

Existing global trade rules are insufficient or ineffective at combatting discriminatory and market-distorting practices in the ICT sector. Current global trade tensions underscore the importance of establishing more robust global trade disciplines that protect and strengthen the U.S. semiconductor industry and the broader global digital economy. We urge the Administration to pursue these and other strong digital trade outcomes, as described in “[The Semiconductor Seven: SIA’s Top Priorities for Trade Agreements](#),” in the U.S.-EU negotiations. Firmly establishing digital trade rules will help counter growing restrictions on U.S. trade and set examples for other countries developing their own digital trade rules. SIA looks forward to working with the Administration on these important issues.

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<sup>10</sup> World Semiconductor Council Anti-Counterfeiting White Paper, p. 5, <https://www.semiconductors.org/wp-content/uploads/2018/01/SIA-Anti-Counterfeiting-Whitepaper.pdf>