The world’s leading semiconductor industry associations – consisting of the Semiconductor Industry Associations in China, Chinese Taipei, Europe, Japan, Korea and the United States - held the 13th meeting of the World Semiconductor Council (WSC) today. This meeting, held in Beijing, China, was conducted under the “Agreement Establishing a New World Semiconductor Council” approved at the third WSC meeting and signed on June 10, 1999, and amended on May 19, 2005.

The WSC meets annually to bring together industry leaders to address issues of global concern to the semiconductor industry. The WSC has the goal of promoting cooperative semiconductor industry activities, to expand international cooperation in the semiconductor sector in order to facilitate the healthy growth of the industry from a long-term, global perspective. It also supports expanding the global market for information technology products and services. Further, it promotes fair competition, technological advancement, and sound environmental, health and safety practices. The WSC encourages cooperation in such areas as environment, safety and health practices, protection of intellectual property rights, open trade, investment liberalization, and market development. All WSC activities are guided by a basis of fairness and a respect for market principles consistent with World Trade Organization (WTO) rules and WSC member association bylaws. The WSC reaffirmed that markets should be open and competitive. Antitrust counsel was present throughout the meeting.

The meeting was chaired by Zhongyu Yu of the Semiconductor Industry Association in China, who welcomed the delegates to the first meeting of the WSC to be held in China. Regional delegations attending the meeting were chaired by Frank Huang of Powerchip Semiconductor, Peter Bauer of Infineon Technologies, Haruki Okada of Fujitsu Microelectronics Limited, Oh-Hyun Kwon of Samsung Electronics, and Hector Ruiz of Global Foundries.

During the meeting, the following reports were given and discussed, and actions on these were approved:

**Technology Update**

The WSC recognizes the growing interdependence among the world’s regional economies in the semiconductor industry and broader electronics supply chain. This interdependence requires that industries and governments and authorities cooperate for the world to continue to reap the benefits from semiconductor technology.

**Cooperative Approaches in Protecting the Global Environment**

The WSC is firmly committed to sound and positive environmental policies and practices. The members of the WSC are proactively working together to make further progress in this area.
(1) PFC (Perfluorocompound) Emission Reduction

The global semiconductor industry is a very minor contributor to overall emissions of greenhouse gases. The industry is voluntarily reducing its PFC gas emissions. Each of the original members of the WSC committed to reduce absolute PFC gas emissions by at least 10% from a baseline year\(^1\) by the year 2010. Industry output has increased substantially while emissions have been voluntarily reduced. The WSC members also actively share non-competitive information on abatement technologies and alternative chemicals that can aid in reducing PFC emissions. Since the start of the programme, companies represented at the WSC have devoted considerable resources to meet their PFC reduction goals and these investments are bearing fruit. The 2008 data emissions update shows that the WSC is making progress towards meeting the target reduction goals. The Semiconductor Industry Association in China is increasing its participation in these activities.

The chart of WSC Indexed PFC Emissions is attached as Annex 1.

(2) PFOS (Perfluorooctyl Sulfonates) Reduction

As part of the WSC’s proactive approach to sound Environment, Safety and Health (ESH) practices, the original members of the WSC and the equipment/supplier trade association SEMI endorsed a plan at the May 2006 meeting which applies to both critical and non-critical applications of perfluorooctyl sulfonate (PFOS) chemicals in semiconductor manufacturing. Very small amounts of PFOS compounds are critical ingredients in leading edge photoresists and antireflective coatings, materials used in the photolithographic process for imprinting circuitry on silicon wafers. The WSC and SEMI are continuing to implement the terms of this voluntary agreement. Work continues to invent and develop potential PFOS substitutes for all critical uses in current and future semiconductor manufacturing. Meanwhile, the WSC welcomes the recent decision of the UN COP4 (Conference of the Parties) meeting of the Stockholm Convention on this substance and the agreed upon classification for remaining critical use in semiconductor manufacturing.

(3) Energy Savings in semiconductor manufacturing

The WSC recognizes that reducing energy consumption continues to be a central activity in the industry’s environmental and sustainability practices worldwide. Reducing energy consumption reduces the need for energy production, resulting in corresponding environmental benefits, and reducing manufacturing costs. The WSC has established an energy conservation partnership with suppliers to the semiconductor industry (represented by SEMI) in a joint effort to achieve further energy-savings in semiconductor equipment. The WSC is developing a framework for a post 2010 energy efficiency strategy.

(4) Quantitative Targets

The WSC members are continuing to focus on resource conservation activities in the production process. The agreed WSC expectation levels, to show progress as an industry, are to reduce normalized electricity (30%), water (45%) used in manufacturing and waste generated (40%) by 2010 from the baseline of 2001. The information collected from the 2007 data, shows that

---

\(^1\) The base year for Semiconductor Industry Association in Europe, Japan and in the US is 1995, for Semiconductor Industry Association in Korea it is 1997 and for Semiconductor Industry Association in Chinese Taipei it is 1998* (1998* represents the average of 1997 and 1999 emissions)
industry expectation levels are being implemented. The normalized reduction of electricity was 37.2%, water 43.2% used in manufacturing, and waste generated 44.4% from the baseline of year 2001. This follows a lengthy period of extensive evaluation of environmental performance indicators that reflect the levels of energy and water consumption by the semiconductor industry as well as the waste that it generates.

(5) Other Environment, Safety and Health Issues

The WSC has a great interest in addressing the global impact of ESH regulations on our industry and in ensuring that regulatory programs are technologically feasible, coordinated and effective in achieving environmental protection. The WSC believes that when ESH laws and regulations are necessary, they should be technologically feasible in achieving environmental protection. Examples of matters of interest include PFAS/PFOA discussions, the EU’s REACH programme concerning chemical usage, the California Global Warming law, as well as several regions’ RoHS (Restrictions on Hazardous Substances) regulations. The semiconductor industry has long recognized the importance of proactively protecting the global environment – as is demonstrated by our numerous efforts in this area.

Effective Protection of Intellectual Property

As an industry, we have been involved in anti-counterfeiting efforts for more than 10 years. The importance and necessity of an industry and bilateral government cooperation have been proven by the successful results of our joint border operations. However, our mutual problem still exists and will continue to exist. Of greater concern, is that this industry loss would contribute directly to increases in health and safety risks for consumers. Lasting success can not be based on a few border operations. True success must be based on continuous and increasingly cooperative interaction among governments, law enforcement agencies, industry, as well as the consumer.

As an important step and with the full support of the WSC, WSC welcomes the upcoming Customs Authority Experts Meeting, to be held in Korea in September 2009, and hopes that it will be fruitful and successful.

Guest Speaker

Continuing on the subject of technology and markets, the WSC welcomed the keynote address on China’s Electronic Information Industry and Informationization Development by Mr. Qinjian Lou, the Vice Minister of the Ministry of Industry and Information Technology of the People’s Republic of China. Mr. Lou spoke to the delegates regarding the following points:

- the progress of China’s economy since 1978
- the impact of the global economic crisis on the Chinese information technology industry the Chinese economic stimulus actions in response to the crisis,
- the convergence of China’s industrialization and informationization development, and
- China’s development as an important market for major IT exporting economies in the world

Additionally, Mr. Lou indicated that there is much room for increased international cooperation in these matters.
Analysis of Semiconductor Market Data

The WSC reviewed semiconductor market reports covering important industry trends including market size and growth. The WSC observed that the industry development is facing short term challenge with global economic meltdown, while in the long-term the industry remains promising as advances in technology continue to bring benefits to consumers and businesses worldwide. The WSC also took note of a report on the development of the China ICT and semiconductor markets as well.

Regional Stimulus

The semiconductor industry has been impacted along with many other industries by the global economic and financial downturn. Semiconductor sales decreased nearly 30 percent in the first quarter of 2009 year-on-year. The worldwide semiconductor industry is dependent on open markets and barrier free trade. While the WSC supports the adoption and implementation of stimulus measures by the respective governments and authorities, it strongly urges governments and authorities to avoid adoption of protectionist or discriminatory purchasing or preference as part of such efforts, and advocates transparency. Such policies will impair economic growth and recovery. The impact of stimulus measures should be measurable in the real economy. Stimulus measures that promote adoption of information technology, green IT, energy savings, and support research and development in particular have the potential to foster growth and benefit society in the years to come and the WSC advocates that these policies be sustained. In addition, the WSC cautions against funding stimulus through overly burdensome taxation as these could harm economic growth in the future.

Free and Open Markets

The WSC re-confirms its joint statement of 2006, that “as a founding principle, the importance of ensuring that markets be open and free from discrimination, and that the competitiveness of companies and their products be the principal determinant of industrial success and international trade. Governments and authorities should, therefore, insure full intellectual property protection, full transparency of government policies and regulations, non-discrimination for foreign products in all markets, a tariff- and barrier-free global environment for semiconductor products, an end to investment or other regulatory restrictions tied to technology transfer requirements, and removal of unreasonable burdens on world commerce.”

Encryption Standards and Regulations

Semiconductors are overwhelmingly used as building blocks for computers, mobile phones, handheld devices and many other widely available commercial information and communications technology (ICT) products and systems. The functionality of semiconductors constantly evolves in order to meet consumer demands, which have increasingly called for product features such as encryption that better protect security and privacy in and across a variety of ICT products and systems. The use of encryption has thus become widespread in many commercial applications.

Regulations that directly or indirectly favor specific technologies, limit market access or lead to forced transfer of intellectual property stifle domestic innovation and, in the case of encryption, prevent access to the strongest available security technologies in the market place,
resulting in less secure products. Both global collaboration and open markets for commercial encryption technologies should therefore be strongly encouraged as they inherently promote more secure and innovative ICT products.

The WSC requests the governments and authorities participating in GAMS to continue their efforts to ensure that all WTO members observe the principles set forth above.

**Multichip and Multi-component ICs**

(1) MCP:

The WSC recommends that the GAMS work to make substantial progress to expand the current geographic scope of the 2006 MCP agreement. The WSC appreciates the possibility that certain non-GAMS members may join the agreement. Against this background, WSC considers it of particular importance that all current GAMS members join the agreement. It calls upon all GAMS members to consider pragmatic approaches to facilitate this objective as soon as possible.

In order to achieve expansion of the geographical coverage of the MCP agreement, the WSC recommends the inclusion of this agreement into agreements such as the ITA, the Doha/NAMA, or other trade agreements.

(2) MCO:

The WSC urges GAMS to continue to facilitate the growth of the semiconductor market by ensuring free and open markets by eliminating tariffs and non-tariff barriers for all semiconductor products – including new types of semiconductor products such as multi component ICs (MCOs).

WSC expresses its concern on the WCO decision to postpone a discussion on this issue to the HS2017 review cycle, despite the positive statement by GAMS issued on September 25, 2008. Having recognized the complexity of the product forms and types and different tariff categories, the WSC urges GAMS members to engage in a cooperative effort to enter into an agreement that expands the product scope of the current MCP agreement, and that is supported by an appropriate product definition in the context of the WCO. The WSC suggests that this definition be elaborated in a WCO expert group, with industry support as appropriate.

The WSC also requests the GAMS to commonly pursue the possibility the inclusion of such new types of semiconductor products in the ITA or other trade agreements as a further means to expand the geographic and product coverage of the 2006 MCP agreement.

**Rules of Origin**

The WSC re-iterates its position in regard to non preferential Rules of Origin. In addition, the WSC states that:

1. for semiconductor products it strongly supports the principle of harmonized rules of origin for trade remedies and for customs purposes, and
2. in the view of characteristics of semiconductor products rules of origin should be defined by manufacturing processes (diffusion or assembly) and not defined on a value added (VA)
WSC re-confirms its desire to further support the ongoing harmonization process whenever it will be required.

In regard to pending harmonization and existing different legal regulations for marking and labeling, the WSC requests GAMS to make progress on the 2008 discussion and find solutions for exempting semiconductor products from mandatory marking and labeling with respect to the origin of the product.

Doha/WTO

Given that semiconductors provide the key enabling technology for existing and new information technology (IT) products, it is vital that trade in semiconductor products, equipment and materials as well as other IT products is as open as possible and that international rules and domestic regulations foster an open and competitive market.

The WSC strongly supports zero tariff treatment on semiconductors and opposes any tariff and non-tariff barriers related to these products. To this end, the WSC urges GAMS to achieve zero tariff treatment on these products by successful conclusion of the WTO NAMA Electronics/Electrical Sectoral Initiative. The Doha Round should become a true development Round with a far more ambitious outcome. Enhanced growth in GDP in all countries requires free trade – that is, no tariff or non-tariff barriers -- on information, computing and telecommunications (ICT) products and services. The increased deployment of ICT products and services will accelerate economic growth rates in developing economies.

To realize these objectives, the WSC recommends members of the GAMS to make every effort to accelerate Doha negotiations to realize zero tariffs and removal of non-tariff barriers for IT products.

ITA

Access to advanced and affordable semiconductor products promotes economic development by increasing productivity and providing the infrastructure needed to compete in the digital age.

The WSC strongly advocates that the GAMS continue to support the development of the trade of IT products by:

1. observing current ITA commitments pertaining to semiconductors,
2. ensuring new type of semiconductors like MCPs and MCOs are included in the ITA, and
3. expansion of ITA membership.

Semiconductor Social Contribution Through Outreach

The WSC reviewed the activities of the associations to communicate the important role that semiconductors can play in enabling energy efficiency and renewable energy, thereby reducing global warming and promoting energy security. The WSC is pleased that our members are actively
engaged in outreach activities jointly and independently since the 2008 Green IT Symposium in Tokyo, and desires that our social contribution is well understood by the public. Recent studies underscore the role that semiconductors can have in saving energy in applications like commercial lighting, industrial 1-5 hp motors, residential color TVs, and residential programmable thermostats. For example, the recently released American Council for an Energy Efficient Economy study found that semiconductor enabled efficiencies could save the U.S. 1.2 Trillion KWh in 2030, an amount that is 11% less than today even though the economy is projected to be 70 percent larger, and representing a savings of 733 Million Metric Tons less CO2 emitted in 2030.

Given the significant impact that semiconductors have on energy efficiency and renewable energy, the WSC has concluded that governments and authorities should ensure that semiconductor industries have “a seat at the table” in relevant stakeholder talks on energy policy.

The WSC calls on policy makers to note studies which say that increased energy consumed by ICT can enable lower consumption in the rest of the economy, with potential savings that are five times total ICT consumption. The WSC members will reach out to the governments and authorities to share the results of recent energy studies and encourage appropriate regional policies to accelerate adoption of energy efficient solutions enabled by semiconductors.

In the context of energy reduction, the WSC endeavors to lead by example and reiterates its expectation that the WSC will meet its target to reduce normalized electricity consumption by 30 percent by 2010 from a 2001 baseline.

Schedule and Agenda for 2010 WSC Meeting

The next meeting of the WSC will be hosted by the SIA in Korea. It will be held in Seoul on May 2010. The SIA in Korea provided a brief description of the facilities and the proposed dates of May 25-28, 2010. The other member associations said they would need some time to confirm the specific dates.

Report to Governments/Authorities

The results of today’s meeting will be submitted by representatives of WSC members to their respective governments/authorities for consideration at the annual meeting of WSC representatives with the Governments/Authorities Meeting on Semiconductors (GAMS) to be held in September 2009 in Korea.

Next Meeting

The next meeting of the WSC will be hosted by the Semiconductor Industry Association in Korea in May 2010.
Key Documents and the WSC Homepage

Annex 1:

All key documents related to the WSC can be found on the WSC website, located at: http://www.semiconductorcouncil.org

Information on WSC member associations can be found on the following websites:

Semiconductor Industry Association in Europe: http://www.eeca.eu
Semiconductor Industry Association in China: http://www.csia.net.cn
Semiconductor Industry Association in Japan: http://semicon.jeita.or.jp/en/
Semiconductor Industry Association in Korea: http://www.ksia.or.kr
Semiconductor Industry Association in the US: http://www.sia-online.org