

Intel's Efforts to Achieve a "Conflict-free" Supply Chain



White Paper

EXECUTIVE SUMMARY

"Conflict minerals"¹ originating from the Democratic Republic of the Congo (DRC) and adjoining countries are sometimes mined and sold, under the control of armed groups, to finance conflict and violence. Some of these conflict minerals can make their way into the supply chains of both industrial and consumer products, including those in the electronics industry. Intel was one of the first companies to address the issue of conflict minerals in its supply chain, and we have worked diligently to put the systems and processes in place to enable us to reasonably conclude that the tantalum, tin, tungsten and gold in our products do not finance or benefit armed groups in the region while continuing to support legitimate mineral sourcing.

We acquire and use conflict minerals from sources worldwide, and our desire is not to eliminate those originating in the DRC and adjoining countries; however, we want the products we purchase from our suppliers to be "conflict-free".² Intel was the first electronics company to publish goals related to manufacturing products from conflict-free sources. Specifically, we met our published goals to manufacture microprocessors with tantalum sourced from conflict-free supply chains in 2012 and since 2013, we have manufactured microprocessors with tantalum, tin, tungsten and gold sourced from conflict-free supply chains. We are continuing our pursuit of conflict-free supply chains for these four minerals for our broader product base.

Intel has worked extensively on the conflict minerals issue for over nine years. Below is a summary of some of our milestones and accomplishments:

- Conducted our first conflict minerals supply chain survey in 2009.
- Since 2009, visited 107 different smelter and refiner facilities in 23 countries with the goal of providing education on conflict minerals, collecting country of origin information of the conflict minerals in our supply chain, and encouraging participation in the [Conflict-Free Smelter Program](#) (CFSP); an initiative organized by the Electronic Industry Citizenship Coalition (EICC) and Global e-Sustainability Initiative (GeSI).
- Established and then co-chaired the EICC and GeSI Extractives Working Group through 2013, which led to the creation of the Conflict-Free Sourcing Initiative (CFSI).

¹ "Conflict minerals", as defined by Securities and Exchange Commission (SEC) rules, is a broad term which means columbite-tantalite (coltan), cassiterite, gold, wolframite, or their derivatives which are limited to tantalum, tin or tungsten, regardless of whether these minerals finance conflict in the Democratic Republic of the Congo (DRC) or adjoining countries.

² "Conflict-free" refers to products, suppliers, supply chains, smelters, and refiners that, based on our due diligence, do not contain or source tantalum, tin, tungsten or gold (referred to as "conflict minerals" by the U.S. Securities and Exchange Commission) that directly or indirectly finance or benefit armed groups in the Democratic Republic of the Congo or adjoining countries.

- Conducted on the ground reviews of the minerals trade in the DRC in 2010 and 2013.
- Supported in-region mining efforts by participating in the "[Solutions for Hope](#)" project to obtain tantalum from conflict-free sources in the DRC, the [ITRI Tin Supply Chain Initiative \(iTSCI\)](#) and the [Public-Private Alliance for Responsible Minerals Trade \(PPA\)](#).
- Demonstrated our commitment to continuing action on this issue by signing a multi-stakeholder statement called the "Challenge to the Conflict Mineral Rule" in 2012.
- Since 2013, we have manufactured microprocessors with tantalum, tin, tungsten and gold sourced from conflict-free supply chains.
- Reported annually on our supply chain due diligence activities in this white paper, our Corporate Social Responsibility Report and our conflict minerals disclosures to the SEC, available on our company website at www.intel.com/conflictfree.
- Since 2014, have obtained an Independent Private Sector Audit (IPSA) of applicable sections of our conflict minerals SEC filing which concluded the design of our conflict minerals program is in conformity with the [Organisation for Economic Co-operation and Development Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas](#)

Driving Accountability in the Supply Chain

The electronics supply chain is deep and wide—with multiple layers of suppliers located in many different countries. This supply chain model has led to incredible efficiency and the ability to produce high-quality computers and consumer electronics at exceptional price points. However, this same highly decentralized, ultra-efficient supply chain makes it extremely difficult to trace the source of minerals used in products.

In pursuit of understanding our complex supply chain and developing one that is conflict-free, Intel first asked our suppliers in 2009 to complete a survey on the origin of minerals for the tantalum, tin, tungsten and gold used in their products and components supplied to Intel. The purpose of this survey was to understand three items: (1) whether our suppliers had implemented conflict-free sourcing policies; (2) whether they had the ability to trace the minerals they used back to the source; and (3) whether they could identify the smelters and refiners that process the minerals in their own supply chain.

Our initial survey results demonstrated great variance in the amount of information our suppliers knew about the minerals used in their supply chains. This finding convinced us that the most effective way to ensure that the tantalum, tin, tungsten and gold used in the electronics supply chain was from conflict-free sources was to implement a validation process at the smelter and refiner level, where ore is converted to ingots, bullion and other conflict mineral containing derivatives. The smelter or refiner is a key point in the supply chain for determining the source of tantalum, tin, tungsten and gold contained in materials supplied to Intel. Partnering with the smelter and refiner facilities is important because once a mineral is processed into a metal, it's difficult to know what country or mine the metal originated from.

Consequently, Intel conducted its first on-site conflict minerals smelter review in 2009. This was the first review ever done in the electronics industry for conflict minerals, and was the catalyst for development of the Conflict-Free Smelter Program (CFSP), an innovative industry audit program designed to validate smelters' and refiners' sourcing practices. We also sent a representative to the eastern DRC in 2010 and 2013, as part of delegations from the U.S. We found that speaking with the various stakeholders involved in the minerals trade in the DRC was invaluable to our understanding of both the challenges and opportunities on this important issue.

Encouraging Industry-Wide Action

Many industries use tantalum, tin, tungsten or gold in their products including, e.g.: aerospace, automotive, jewelry, information technology, and consumer electronics. Intel and others in our industry quickly realized that we would need to work across many industries to tackle this complex problem. To support multi-industry collaboration, Intel has assisted in convening a number of well-attended industry meetings on conflict minerals. In 2009, we co-chaired the first electronics industry supply chain meeting for tin in Vancouver, Canada. Since then, we have sponsored or co-sponsored a “call to action meeting” in San Francisco; a meeting on tantalum at our facility in Chandler, Arizona; a meeting with the gold industry in Denver, Colorado; and a multi-stakeholder meeting in Philadelphia, Pennsylvania.

We also co-chaired the EICC and GeSI Extractives Working Group through 2013, which led to the creation of the Conflict-Free Sourcing Initiative (CFSI), a joint initiative of more than 350 companies from seven different industries. CFSI and its member companies collaborate together and provide tools and resources that support responsible mineral sourcing, including the CFSP’s validation audit of smelters and refiners and the Conflict Minerals Reporting Template (CMRT), a supply chain survey tool. Additionally, EICC, GeSI, and the CFSI have hosted conflict minerals supply chain workshops to educate others on the conflict minerals topic. The CFSI has grown into one of most respected industry resources for companies addressing the conflict minerals issue. More information regarding the CFSI is available at their website - <http://www.conflictreesourcing.org>.

Traceability in the Supply Chain

Through our industry meetings and forums we acquired a great deal of information and gained insight regarding traceability in our supply chain. Our on-site smelter and refiner reviews have enabled us to understand the unique operating characteristics of individual smelters and refiners, and determine the current gaps in their ability to trace the source of ore to countries and mines of origin. For example, some facilities had documentation indicating the country that mineral ore was shipped from, but not on the country where the ore was originally mined. This is a critical issue because minerals (especially gold) can be smuggled into other countries, making traceability even more challenging.

We also learned that the infrastructure needed to trace the source of materials in our supply chain did not exist and concluded that a process to audit and validate smelters and refiners would be necessary. The smelter and refiner reviews conducted by Intel laid the groundwork for the EICC and GeSI Extractives Working Group to develop and implement a process for independent third party audits of smelters and refiners—the Conflict-Free Smelter Program (CFSP). Through the CFSP validation process, an independent third party audits the management systems and processing activities of a smelter or refiner to determine if sufficient documentation exists to demonstrate with reasonable confidence that the minerals the facility processes originate from conflict-free sources.

Due to the unique characteristics and complexities associated with each of the four conflict minerals, the working group determined that it would be most feasible to address one mineral at a time. In 2010, the working group created the first tantalum smelter audit protocol, and then selected three independent auditing firms to conduct the tantalum smelter validation audits. In 2011, under the leadership of Intel and with the cooperation of many within the EICC and GeSI industry groups, the CFSP released the audit protocols for smelters and refiners that process gold, tin, and tungsten. These audit protocols are now in place and serve as a core component of the CFSP validation audit for smelters and refiners. To increase the accuracy and efficiency of the CFSP audit procedures, Intel

collaborated with metal-specific industry associations, such as the [Tantalum-Niobium International Study Center \(TIC\)](#), [International Tin Research Institute \(ITRI\)](#), [London Bullion Market Association \(LMBA\)](#), [Responsible Jewelry Council \(RJC\)](#), [International Tungsten Industry Association \(ITIA\)](#) and the [Tungsten Industry Conflict Minerals Council \(TI-CMC\)](#).

Since 2010, smelters and refiners that successfully comply with the audit requirements are listed on the publicly available [CFSP Compliant Smelter and Refiner Lists](#). As of May 2017, the CFSP website listed 247 compliant smelters and refiners across four different mineral categories (94 gold, 44 tantalum, 69 tin, and 40 tungsten). More facilities are being added as facilities complete the rigorous auditing process. The goals of making this information public is to be transparent, to recognize smelters and refiners which process conflict minerals that do not finance or benefit armed groups in the DRC and adjoining countries, and to provide new options for companies that want to obtain minerals from conflict-free sources for their products and customers.

Achieving our Goals to Manufacture Products from Conflict-Free Sources

Before the publication of the final U.S. Securities and Exchange Commission's rule on conflict minerals, Intel set a public goal to manufacture the world's first commercially available microprocessor that is conflict-free for tantalum, tin, tungsten, and gold in 2013. At the time we set this goal in February 2012, we did not know whether it was achievable, but we used the goal to push ourselves and to drive action.

On January 6, 2014 at the Consumer Electronics Show in Las Vegas, Nevada, Intel Chief Executive Officer Brian Krzanich announced that Intel had achieved its goal, and he celebrated that milestone by encouraging other companies and industries to join Intel in a collective effort to obtain the minerals from conflict-free sources.

We achieved this milestone by establishing a due diligence program that focuses our efforts in two primary areas:

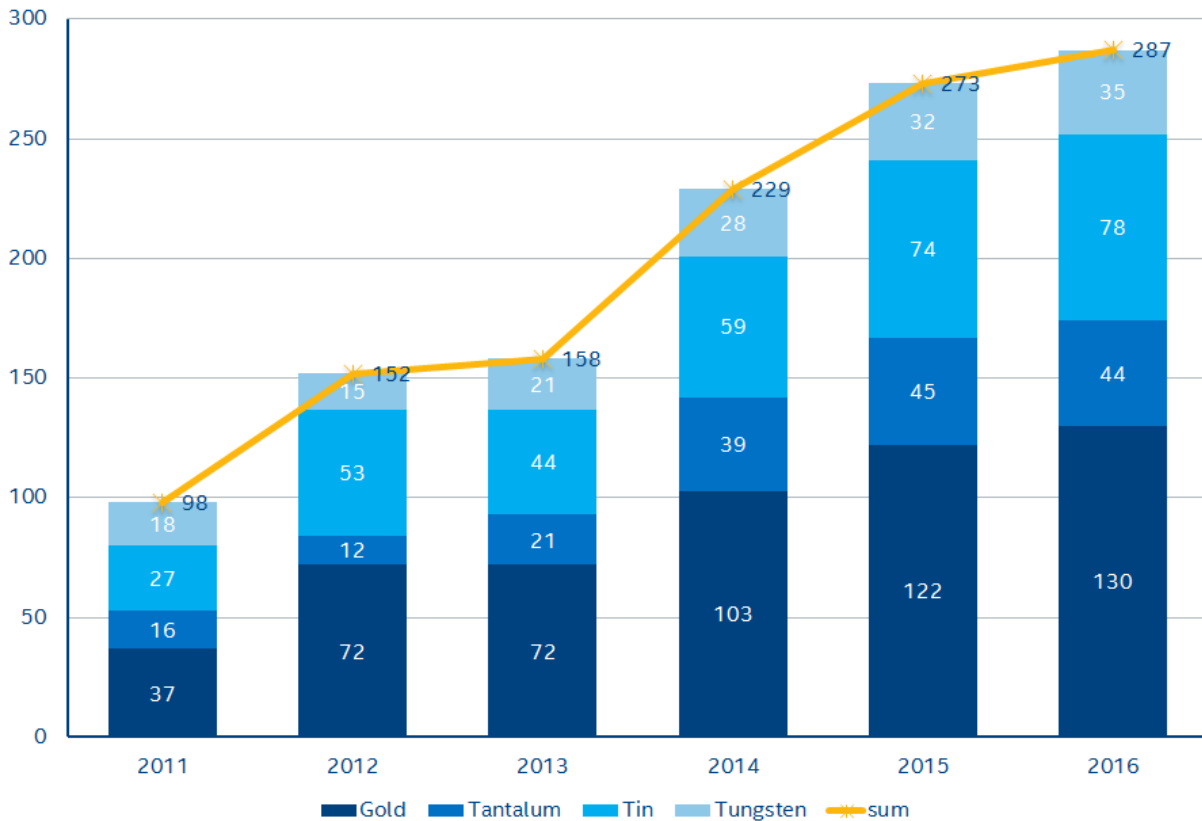
- (1) **Identification:** We examine our supply chain and work with our suppliers to determine those materials that contribute tantalum, tin, tungsten, and/or gold to our products. We conduct a supply chain survey and request identification of the smelters or refiners supplying the metal. We partner up and down the supply chain to resolve unclear or missing information, and conduct our own examination of the results to check that the supply chain correctly identified smelters and refiners.
- (2) **Validation:** Smelters and refiners are validated through independent third party audit programs such as the [CFSP](#), the [London Bullion Market Association's Responsible Gold Programme](#), or the [Responsible Jewellery Council Chain-of-Custody Certification program](#). Alternatively, Intel staff contacted numerous smelters and refiners – visiting 107 different facilities in 23 different countries since 2009 - to conduct a “reasonable country of origin inquiry” to determine the sources of incoming raw materials, including ore, partially processed materials such as concentrates, and recycled and scraps materials. During such visits, Intel staff conduct due diligence and directly observe and examine the types of documentation a CFSP auditor would review to draw reasonable conclusions on the country of origin of the minerals processed at the smelter or refiner. We also seek reliable information on the source and chain of custody of the conflict minerals processed by smelters and refiners, including from publicly available sources and from the smelters and refiners themselves, with the goal to determine if any of these facilities processed conflict minerals that may have originated from the DRC and adjoining

countries. We encourage all smelters and refiners that we contact to also participate in an independent third party audit program.

Supplier Due Diligence Summary

Since conducting our first supply chain survey in 2009, Intel has consistently engaged our direct suppliers on the conflict minerals issue. Our annual supply chain survey requests suppliers to identify the smelters and refiners and countries of origin of the tantalum, tin, tungsten and gold in products they supply to us using the CFSI's Conflict Minerals Reporting Template (CMRT). We evaluate the accuracy and completeness of the CMRTs our suppliers provide using third party software and through review by members of our internal conflict minerals team. When incomplete or potentially inaccurate information is identified, we contact the supplier and request the supplier to investigate the information and provide an updated CMRT. We also evaluate whether a supplier meets our conflict minerals policy and contractual requirements based on information included in the CMRT. These requirements include that our suppliers must maintain a publicly available conflict minerals sourcing policy, provide a CMRT upon our request, and use smelters and refiners that have either received a conflict-free designation from an independent third party audit program, have begun participating in such a program, or are included among the facilities that we have reasonably concluded, through our own due diligence activities, do not process conflict minerals originating from the DRC or adjoining countries. Approximately 93% of our relevant suppliers are currently meeting our conflict minerals policy and contractual requirements. Below is a summary of the smelters and refiners identified by our direct suppliers through our annual supply chain survey process.

Smelters & Refiners Identified by our Supply Chain Survey



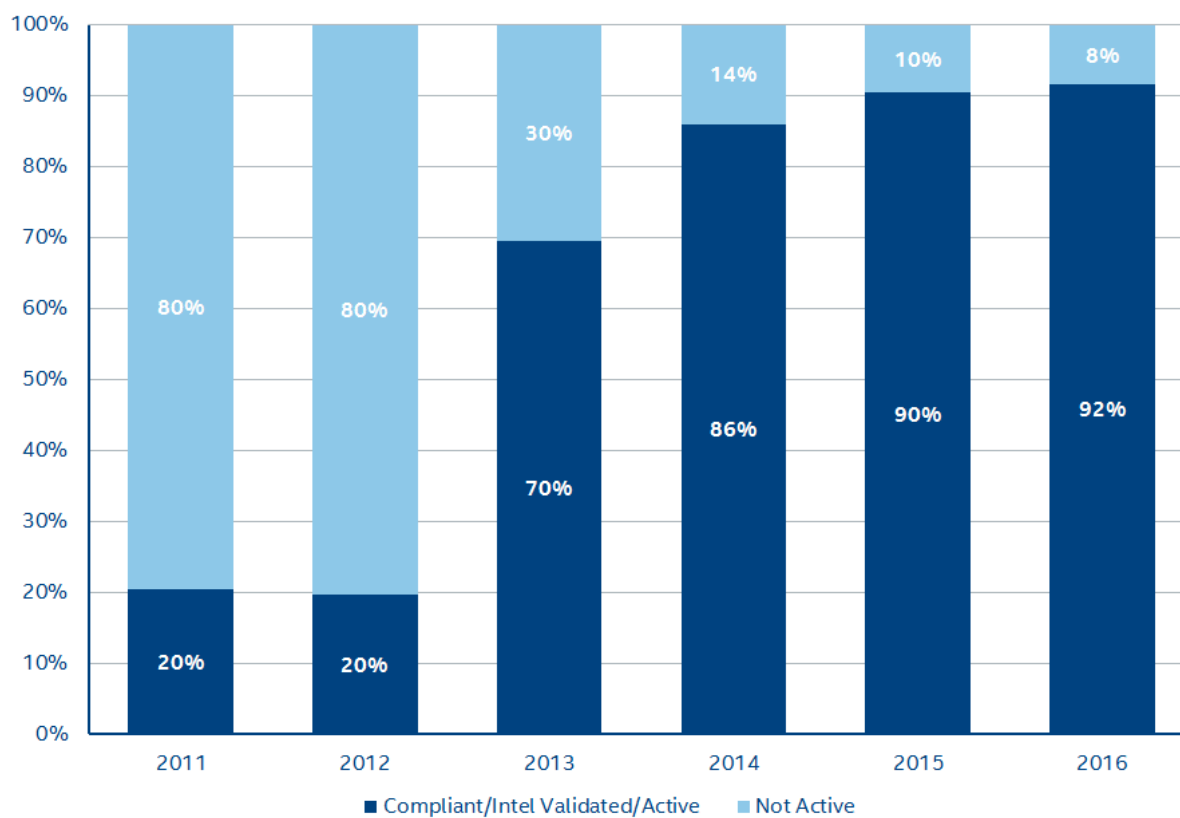
Smelter and Refiner Due Diligence Summary

We further conduct due diligence on the smelters and refiners identified through our supply chain survey. We continually compare the smelters and refiners identified in the survey against the lists of facilities which have been validated by the CFSP and other independent third party audit programs. For those smelters and refiners which are “Not Active” in an independent third party audit program, we attempt to contact and visit those facilities to request country of origin and chain of custody information and request their participation in an independent third party audit validation program such as the CFSP. There are typically many layers in the supply chain between Intel and a smelter or refiner, so it is often difficult to establish contact with these facilities. Once contact has been established, some smelters and refiners are reluctant to allow us to visit their facility to conduct an on-site review of country of origin or chain of custody information. If we are unable to establish contact with smelter and refiner facilities, we seek source and chain of custody information from publicly available sources including smelters and refiner websites. In some cases, both through our direct contact with a facility or public records search, we determine the source and chain of custody information to be reliable and complete and therefore we use the information to make reasonable conclusions that the facility does not process conflict minerals originating from the DRC or adjoining countries (referred to as “Intel Validated”).

As of December 2016, Intel has visited and conducted reviews at 107 different smelter and refiner facilities in 23 countries (Australia, Austria, Belgium, Bolivia, Canada, Chile, China, Germany, Indonesia, Japan, Malaysia, New Zealand, Norway, Peru, Poland, Rwanda, South Africa, Republic of Korea, Switzerland, Thailand, United States, United Arab Emirates and Vietnam). More and more smelters and refiners are seeking validation from an independent third party audit program to meet the growing supply chain expectation for conflict-free products including responsibly sourced minerals from the DRC and adjoining countries.

Thus far, 263 of the smelters and refiners in our supply chain, approximately 92%, have either received a conflict-free designation from an independent third party audit program, begun participating in such a program, or through our own due diligence been determined to be conflict-free. Below is a summary of our year-over-year progress to validate smelters and refiners identified in our supply chain.

Smelters & Refiners Compliance Summary



Additional details regarding our due diligence efforts are explained in our most current conflict minerals disclosures provided to the SEC available at our website, www.intel.com/conflictfree.

Unintended Consequences

Companies working to undertake due diligence in their supply chain may unintentionally drive down demand for all minerals coming from the Great Lakes Region in Central Africa by working to secure sources outside the region. This well-intended action can inadvertently hurt the economic opportunities for artisanal and other legitimate miners operating in that region.

Intel is working to help mitigate such unintended consequences. In late 2011, Intel, in partnership with the U.S. State Department, the U.S. Agency for International Development, and other companies, announced the establishment of the [Public-Private Alliance for Responsible Minerals Trade](#) (PPA). The PPA provides funding and coordination support to organizations working within the region to develop verifiable conflict-free supply chains; align chain-of-custody programs and practices; encourage responsible sourcing from the region; promote transparency; and bolster in-region civil society and governmental capacity.

To enable responsible in-region minerals trade from the DRC and adjoining countries, we continue to support programs such as ITRI Tin Supply Chain Initiative (iTSCi), the Better Sourcing Program (BSP), and the PPA. These programs assist in the creation and implementation of due diligence programs consistent with the Organisation for Economic Co-operation and Development (OECD) Due Diligence Guidance for Responsible Supply Chains of Minerals From Conflict Affected and High-Risk Areas (the

OECD Guidance). We are an associate member of the iTSCI and participate on the advisory committee for the BSP. We support the creation of other in-region validation programs such as the International Conference on the Great Lakes Region (ICGLR) Regional Certification Mechanism and Better Sourcing Program. Our [Conflict Minerals Sourcing Policy](#) summarizes our quest to find responsible in-region mineral sourcing solutions as part of our overall effort to achieve a conflict-free supply chain.

Government Participation

Intel believes that an effective solution to the complex issue of conflict minerals will require coordinated efforts by governments, non-governmental organizations (NGOs) and industry. Intel has met with representatives from the U.S. government, the European Commission and EU member states and other international governments on the topic of conflict minerals and to share the industry's approach of auditing smelters and refiners. Intel supports the OECD Guidance and participates in the Joint Forum on Responsible Mineral Supply Chains organized by the OECD, International Conference on the Great Lakes Region and United Nations Group of Experts.

The U.S. Congress included provisions to address conflict minerals in the Dodd-Frank Act, and the SEC followed with disclosure regulations for public companies in the U.S.; however, Intel's efforts on this issue pre-date this action. In late 2012, the National Association of Manufacturers, the U.S. Chamber of Commerce, and the Business Roundtable filed a petition for judicial review of the SEC conflict minerals disclosure regulations. Intel is a member of these trade associations; however, the positions of these trade organizations do not always align with Intel's positions. Consequently, Intel signed onto a multi-stakeholder statement regarding the "[Challenge to the Conflict Mineral Rule](#)," to demonstrate our unwavering commitment to this issue. The statement urged stakeholders to continue the important work underway to address the critical issue of transparency in the minerals supply chains.

We believe that legislation, including the U.S. Securities and Exchange Commission conflict mineral disclosure requirements and most recently, the European Union's (EU) conflict minerals regulation, has been helpful in bringing others to the table and maintaining broad momentum on this issue. For the past two years, Intel engaged with our industry to discuss proposed EU legislation addressing responsible sourcing of tantalum, tin, tungsten and gold from conflicted affected and high risk areas. Now finalized, the EU legislation, alongside the European Partnership on Responsible Minerals (EPRM) and in unison with existing initiatives including the CFSI, properly focuses resources on supporting further development, implementation, harmonization and improvement to existing initiatives in relevant economies at key points in the supply chain. Efforts to continue development and scaling of systems to validate responsible sources from the DRC should be supported as a priority. Smelters and refiners are recognized as the pinch point in the minerals supply chain and therefore the EU legislation will complement existing initiatives to mitigate supply chain risks by applying OECD-conformant due diligence processes to establish responsibly sourced mineral supply chains.

We will continue to focus our energy and efforts as we always have—on putting in place systems and due diligence measures that will enable us to reasonably assure that products and components supplied to us contain responsibly sourced minerals. Such actions support Intel's goal to use tantalum, tin, tungsten, and gold in our products that do not finance or benefit armed groups in the DRC and adjoining countries while continuing to support responsible mineral sourcing from the region. We have made substantial progress towards our goal to validate our broader product base and will continue our pursuit of conflict-free supply chains, while our engagement with business partners, governments, and NGOs on responsible sourcing issues continues and evolves. Changing

conditions deep in our supply chain and other potential risks involved in the mining and trade of minerals, beyond conflict in the DRC and adjoining countries, will require ongoing vigilance and may require us to address new issues. These changing conditions call for us to adopt a more comprehensive view beyond conflict-free products, an approach that seeks to deal with responsible mineral sourcing issues more broadly.

Summary

From the time we became aware of the potential for conflict-linked minerals from the DRC to enter our supply chain, we have responded with a sense of urgency and resolve. We have approached this issue in the same manner as we address other significant business challenges at Intel. We first collected as much information about the situation as we could, not relying solely on our own knowledge, but also seeking insight and experience from other stakeholders and organizations with expertise in this area. We communicated with our suppliers and expressed our sense of urgency on this issue and our expectations. We met with industry peers and governmental officials, and traveled hundreds of thousands of miles around the globe to visit numerous smelters and refiners in our relentless pursuit of a conflict-free supply chain.

We determined that the most effective and efficient method for reducing the potential for conflict minerals to enter our supply chain was to focus on the smelter and refiner facilities where the ore is processed. Intel and other EICC/GeSI member companies developed a smelter and refiner validation process, called the Conflict-Free Smelter Program (CFSP). Smelter and refiner validation audits are ongoing, and new smelters and refiners are regularly being added to the public list of validated conflict-free facilities. We believe this process will be instrumental in helping others to achieve their goal of obtaining tantalum, tin, tungsten and gold from conflict-free sources.

As a result of our efforts, in January 2014 we announced an important industry milestone: Intel accomplished its goal to manufacture microprocessors that are conflict-free for tantalum, tin, tungsten, and gold. Thus far, 263 of the smelters and refiners in our supply chain, approximately 92%, have either received a conflict-free designation from an independent third party audit program, begun participating in such a program, or through our own due diligence been determined to be conflict-free. We will continue our pursuit to validate the supply chain for our broader product base as conflict-free and address other supply chain risks, to help establish responsibly sourced mineral supply chains for our company as well as our industry. Conflict-free sourcing is not fully resolved, and will take ongoing vigilance. We welcome your feedback on our approach and disclosure at:

www.intel.com/about/corporateresponsibility/contactus.

For more information, visit www.intel.com/conflictfree

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