



Supplier Responsibility

2017 Progress Report



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Driven by responsibility to people and the planet.

From responsible sourcing to recycling, every aspect of how we make our products is deeply considered. This 11th annual Supplier Responsibility Progress Report details the advancements we made in 2016 throughout our supply chain.

In 2016, we continued to increase our efforts with our suppliers. We performed 705 comprehensive site audits, our largest number to date. Our suppliers demonstrated an improved ability to meet our stringent standards. In fact, the number of high-performing supplier sites increased by 59 percent, while low-performing sites decreased by 31 percent. We improved our working hours compliance to 98 percent, achieved 100 percent UL Zero Waste to Landfill validation for all final assembly sites in China for the first time, and achieved 100 percent compliance with our Regulated Substances Specification for process chemicals at all final assembly sites. We also tripled the number of supplier sites participating in our energy efficiency program, resulting in the reduction of more than 150,000 metric tons of carbon emissions. A number of large suppliers have already committed to power all Apple manufacturing with renewable energy by the end of 2018. Ultimately, our goal is to equip our suppliers with the capability to one day independently uphold all labor and human rights protections, and maintain effective health, safety, and environmental practices in their own operations.

At the center of our supply chain operations are the dedicated people who make our products. We remain dedicated in seeking new ways to support our supply chain talent and help improve their lives both during and beyond the workday. In 2016, we partnered with our suppliers to train more than 2.4 million workers on their rights as employees. Since 2008, over 2.1 million people have participated in Apple's Supplier Employee Education and Development ("SEED") program. We also expanded our educational programs to include worker-focused mobile platforms, providing 80,000 workers with English skills training, and nearly 260,000 workers completed Environment, Health & Safety ("EHS") courses.

In 2016, we expanded our responsible sourcing efforts beyond conflict minerals to include cobalt. We're proud to report that 100 percent of our conflict minerals and cobalt smelter/refiner partners are now participating in independent third-party audits to ensure their own business practices are conducted responsibly. Our commitment to responsible sourcing will not waiver and we will continue to drive our standards deep in our supply chain.

Although this is a report about our 2016 accomplishments, we know there's always work to be done. By holding our suppliers accountable to the highest standards and partnering with them to make lasting change, we remain steadfast in our commitment to improve lives and protect the environment.



A technician inspects iPhone components.

Supplier Improvement

Realizing progress through partnership.

Our Supplier Code of Conduct outlines our standards for creating safer working conditions, treating workers fairly, and using environmentally responsible practices in our supply chain. We demand that all suppliers doing business with Apple affirmatively agree to adhere to our Code of Conduct and supporting standards. Our Code goes beyond mere compliance with the law. Every year, the requirements that our suppliers must meet increase and our efforts to raise the bar continue.

During onsite facility audits, a supplier's operations and management systems are thoroughly evaluated on more than 500 data points corresponding to our Code of Conduct. We continue to partner with independent third-party auditors to review documents, interview management and line operators, and perform onsite inspections. While evaluating overall conditions, we also look for core violations. These include underage workers or involuntary labor, document falsification, intimidation of or retaliation against workers, and egregious environmental and safety risks.

We expect our suppliers to show steady improvement. If year-over-year improvement is not demonstrated by a low-performing supplier, they risk losing our business. In 2016, we enforced a stricter performance policy, placing any supplier with a core violation or sustained poor supplier responsibility performance on an immediate probation plan. As a result of our policy on inadequate performance, we significantly reduced business allocation to 13 suppliers and cut business ties altogether with three suppliers in 2016.

Nearly
30%
of our assessments involved
new suppliers in 2016

Leave no area for improvement unturned.

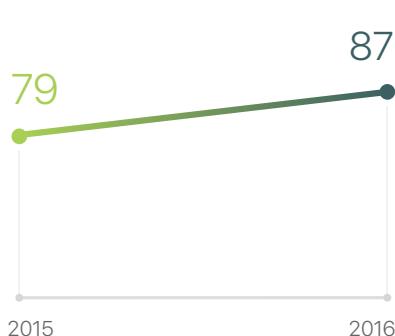
In 2016, nearly 30 percent of our assessments involved new suppliers. Our discussions with these supplier partners begin with a new supplier onboarding process, where we visit their facilities in person to review our Code of Conduct, share best practices across our supplier base, and give them a head start on developing successful management systems. We help these new suppliers understand common missteps and we provide them with proven solutions. We also teach them to perform their own risk assessments, and develop corrective action plans, which we then verify along with our third-party auditors. In 2016, suppliers who took part in our new supplier onboarding process increased scores by 39 percent on average, compared to their initial self-assessment scores.

When we uncover Code of Conduct violations at our supplier facilities, we work with them to correct the violations and we teach our partners how to proactively prevent future issues. Following supplier assessments, we conduct onsite meetings to review gap analysis of low-score areas, identify the root cause of all issues, and develop with our supplier partners a customized corrective action plan. During this process, we draw upon a bank of over 100 technical toolkits assembled from our extensive experience in building supplier capability. Over a period of three to six months following an assessment, Apple technical experts conduct detailed reviews with suppliers to help them meet their targets. We then schedule a final visit to determine if the improvements were sufficient for the supplier to return to the regular engagement cycle, or if we should extend the partnership to support the supplier's efforts to improve performance.

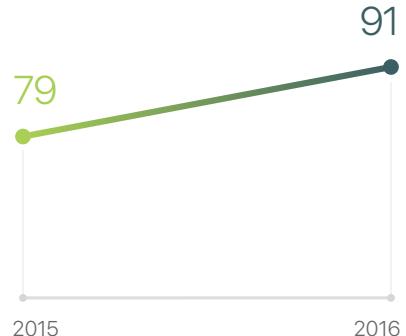
In 2016, we expanded our supplier partnership efforts by extending customized, in-person consultation to low and medium performers through our Subject Matter Expert ("SME") program. Our SME team consists of technical experts with deep experience in topical areas such as labor law, safety risk assessment and control, chemical engineering and industrial hygiene, machine and electrical safety engineering, and wastewater, stormwater, and air emission system design.

Our SME program covered 138 suppliers in 2016. On average, the facilities that were reassessed saw their year-over-year Labor and Human Rights scores increase from 79 to 87, Health and Safety scores increase from 79 to 91, and Environment scores increase from 67 to 87, on a scale of 100. By forming close partnerships with our suppliers, we help them realize significant improvements in their efforts to conduct responsible operations on a day-to-day basis.

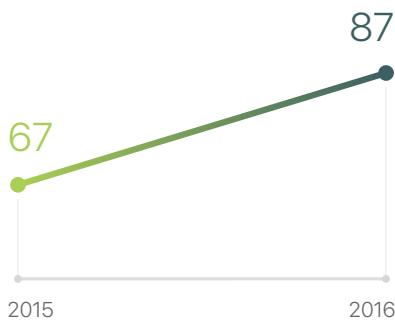
Average Labor and Human Rights Score



Average Health and Safety Score



Average Environment Score



Case Study

Success through collaboration.

Whether in the United States or abroad, we take environmental concerns very seriously. During an assessment at the Dynacast facility in Suzhou, China, we uncovered stormwater and hazardous waste management issues that required immediate attention. We worked with Dynacast to correct the immediate concerns, and enrolled them in our SME program to drive long-term success.

Over the course of six months, our team coached Dynacast's staff on Apple's standards and trained them to conduct self-assessments. Apple helped Dynacast deploy changes like standardization of waste labels and signage through the facility, installation of anti-leakage flooring in the hazardous waste storage area, adding emergency and spill kits in storage areas, and enhancement of secondary containment for not just waste, but other chemicals as well. Dynacast's team also improved their ability to identify stormwater pollution risks, and developed a stormwater map and a new stormwater management process.

As a result, Dynacast's reassessment score rocketed from 63 to 95, one of the biggest supplier improvements to date. Dynacast has since decided to adopt Apple's assessment protocol and standards to audit their own suppliers.

Safe by design.

At Apple, we embrace change. When we develop new products and designs that require our suppliers to do things in new ways, our process safety engineers scrutinize manufacturing processes for health, safety, and environmental risks. When risks are identified, we partner with internal and supplier engineering teams to design risk mitigation plans. We conduct safety tests, technical training, and onsite verifications to ensure that new products or components can be produced safely.

In 2016, our process engineers provided in-depth technical reviews on a significant number of new manufacturing processes. We also created a new Factory Readiness Assessment tool to ensure that factories were fully prepared to provide worker safety and environmental compliance.

US\$2.6M

reimbursed to over 1000 workers in 2016

Imagine paying to get a job. We can't either.

Going into debt as a result of unfair recruitment fees is no way to start a job. Bonded labor is a core violation of Apple's Code of Conduct and we have zero tolerance for it. If a case is found, we require the supplier to repay all recruitment fees back to the worker. In 2016, uncovered violations resulted in US\$2.6 million being repaid to over 1000 supplier employees. To date, a total of US\$28.4 million has been repaid to over 34,000 workers. Virtually all bonded labor violations occur during a supplier's first assessment, which is why we now include this in our onboarding process for new suppliers. Repeat cases are very rare—the few such instances have resulted in the end of the business relationship.

Case Study

Helping put an end to bonded labor wherever it exists.

No matter where it's discovered, we will not tolerate bonded labor. During a comprehensive onsite audit at a distribution center in the United Arab Emirates, we uncovered a case of bonded labor, one of our core violations. The bonded labor case involved an employee of a subcontractor providing services to the supplier we were auditing.

A number of other code violations were also discovered. We found that the subcontractor was improperly withholding passports. We also found that the subcontractor had a lower-than-standard meal allowance and unacceptable dorm rules.

All of these were serious violations and while we attempted to work with the subcontractor to correct these issues, they were ultimately unwilling to comply with our standards. That left us with no other option than to work with the initial supplier to remove the subcontractor from their supply chain and, where possible, absorb the employees onto their own payroll. The supplier didn't just stop there. They created an entire supply chain responsibility department and became members of the Electronic Industry Citizenship Coalition ("EICC"). It is suppliers who show this kind of strong commitment to human rights who will help put an end to bonded labor throughout the industry.

We remain vigilant about eliminating underage labor.

There's absolutely no excuse for anyone under legal working age to be in our supply chain. In 2016, we assessed 705 facilities that employ nearly 1.2 million people and found one underage worker, a 15½-year-old who had been working in a manufacturing facility in China, where the legal working age is 16. We required the supplier to provide safe passage home for the underage worker, and to continue paying their wages while also providing an educational opportunity. Upon the underage worker becoming of legal age, the supplier will be required to provide them with an employment opportunity.



compliance with 60-hour workweek in 2016

Full-time doesn't mean you should work all the time.

Working excessive hours is an issue often associated with the manufacturing industry. We have a policy based on International Labor Organization and EICC standards that limit working hours to no more than 60 hours a week, with a mandatory rest day once every seven days.

In 2016, we tracked working hours on a weekly basis at supplier sites that employed nearly 1.2 million workers in our supply chain. We improved upon our previous year's results by achieving 98 percent working hours compliance across all workweeks. Our cross-functionally integrated program includes careful verification of all data reported by suppliers as part of our standard assessment process.

Health and safety first.



of all process chemicals at all final assembly facilities were free of Apple-restricted substances

81

sites assessed, pairing our technical experts with internal and supplier product development teams

Apple has a long-standing commitment to eliminate unsafe chemicals from our products and processes. In addition to reviewing chemical handling practices in our core audits, our Chemical Management program focuses on eliminating or reducing the use of hazardous substances through product design, substitution with safer alternatives, and reengineering of manufacturing processes.

In 2016, we completed an annual chemical mapping at all final assembly sites, reviewing things like chemical locations, storage, and quantities, as well as ventilation and protective equipment. We also verified that 100 percent of all process chemicals at all final assembly facilities were free of Apple-restricted substances such as benzene, n-hexane, and chlorinated organic solvents in cleaners and degreasers. In the pursuit of greater transparency and adoption of safer solvents, we have shared our learnings through Green America's Clean Electronics Production Network initiative.

Also in 2016, we extended the reach of our chemical management efforts from final assembly sites to critical component manufacturing suppliers. We investigated 81 sites, pairing our technical experts with internal and supplier product development teams, to assess chemical inventories, occupational hazard risks, storage, and management systems. We also provided these suppliers with consultation and training to strengthen their ability to identify and solve issues on their own. Through close cross-functional efforts, we developed a model to provide chemical management oversight with each new product, and to ensure past improvements remain in place. We will continue to assess suppliers against our Regulated Substances Specifications to identify any hazardous chemicals we might limit or prohibit in our manufacturing processes.



An Apple SME discusses safe use of bonding agents with a line operator in Shenzhen, China.

Solar farm in Sparks, Nevada.



Manufacturing with the World in Mind

We're leading the way on the environment and helping our partners keep pace.

Throughout our supply chain, we're driving programs that minimize carbon emissions, eliminate landfill waste, conserve water, and replace unsafe chemicals. We're also helping our suppliers reduce the amount of energy they use and make the switch to renewable energy. We're even taking responsibility for our paper supply chain: More than 99 percent of the paper used in our packaging comes from either recycled wood fiber or sustainably managed forests and controlled wood sources. Innovation is at the heart of everything we do at Apple, and that extends to our commitment to the people in our supply chain and the planet.

#1

ranking for third year
in a row by Corporate
Information Transparency
Index (CITI)

It's a big world. We want to leave as little impact on it as possible.

For the third straight year, Apple achieved the top score in the Corporate Information Transparency Index ("CITI") with a score of over 80, the first company to do so. The CITI is run by the Institute of Public and Environmental Affairs ("IPE"), a Chinese non-governmental organization with extensive expertise in environmental transparency.

We utilize environmental data collected by IPE to help identify areas for improvement in our suppliers' environmental performance, and we invite IPE personnel to provide oversight on ensuing remediation of any identified gaps. This has resulted in closure of 196 issues identified by local environmental authorities since 2012, including 23 in 2016 alone. In each of these cases, IPE directly facilitated and supervised independent third-party validation of the enhancements made. Further, 100 percent of our suppliers involved in this process continue to share annual environmental monitoring data through IPE's platform to transparently demonstrate that their improvements are sustained. Some of our suppliers have internalized this approach and now work directly with IPE on managing environmental issues within their own supply chain.

200K+

metric tons of waste
diverted from landfills
in 2016

100 percent committed to zero waste.

In 2016, we increased our efforts to reduce and ultimately eliminate manufacturing waste by expanding our UL Zero Waste to Landfill validation program to all China final assembly sites. The total volume of waste diverted from landfills more than doubled year-over-year, from nearly 74,000 metric tons in 2015 to more than 200,000 metric tons in 2016. All of our China final assembly sites now divert 100 percent of their waste from landfill, and 15 sites were certified via third-party audit as zero waste, compared to just one in 2015. The impact of this program extends far beyond our suppliers' walls. This work has strengthened local recycling networks, redesigned processes to close-loop consumable materials, increased the use of recyclable and reusable materials, and generated interest among component suppliers to follow suit.

Case Study

Creating a zero waste manufacturing facility.

In 2015, we started a zero waste program for our final assembly suppliers. One of the participants was Tech-Com in Shanghai. Working closely with the facility, we discovered that more than 20 percent of the waste they produced was being incinerated or going to landfills. We partnered with our supplier and their local recycling facility to develop a better process for separating and recycling waste. As a result, Tech-Com is now able to recycle all of their manufacturing waste. Tech-Com also developed a new process for managing food waste, allowing them to send it to a local composter instead of a landfill. They then used what they had learned to develop a process for their own suppliers that helped their suppliers collect and reuse packaging material. Since the program started, Tech-Com has diverted more than 10,000 metric tons of waste from landfills, earning the company a well-deserved UL Zero Waste to Landfill validation in 2016.

Water—doing more to use less.

3.8B+

gallons of water saved
in 2016, 8B+ gallons of
water saved since 2013

Water is one of our planet's most challenged and finite resources. Since 2013, Apple's Clean Water Program has focused on the reduction of freshwater use in our suppliers' processes and increasing the reuse and recycling of treated wastewater. This year, we helped our suppliers conserve over 3.8 billion gallons of freshwater, and establish a 35 percent average reuse rate across 86 sites. Since its inception, our Clean Water Program has saved over 8 billion gallons of freshwater, enough to provide every person on the planet with 18 glasses of water.

Taking major steps to reduce our carbon footprint.

More than

150K+

metric tons of
carbon emissions
reduced in 2016

We're working hard to fight climate change by reducing emissions across our footprint, including in our supply chain. But we're not stopping there. We're advancing renewable energy usage by working with suppliers to create 4 gigawatts of renewable energy around the world by 2020 that will help power their facilities. In 2016, we tripled the number of supplier sites participating in our energy efficiency program, resulting in the reduction of more than 150,000 metric tons of carbon emissions. A number of large suppliers have already committed to power all Apple manufacturing with renewable energy by the end of 2018. These commitments will reduce carbon emissions by 7,000,000 metric tons per year, the equivalent of removing 1,500,000 cars from the road for a year.



A supplier employee in Suzhou, China, attends an Environmental Health and Safety class.

Educating & Empowering Supplier Employees

Every workday should include opportunity and enrichment.

At the heart of our supply chain operations are the hard-working people who make our products. We want them to succeed not just at work, but outside of it as well. Their success begins with understanding their own rights. Since 2008, our suppliers have trained over 11.7 million workers to understand their rights as employees, local laws, health and safety regulations, and the Apple Code of Conduct. Beyond understanding their rights, we offer workers in our supply chain coursework across many disciplines. From platforms for becoming fluent in English, to strengthening personal finance skills, and everything in between. We're dedicated to protecting the people in our supply chain and providing them with the tools to help them today and in the future.

2.1M+

Supplier Employee
Education and Development
students since inception

A workplace of opportunity.

Since 2008, our Supplier Employee Education and Development ("SEED") program has leveraged onsite classrooms with Mac computers, iPad devices, and video conferencing equipment to enable workers to take courses ranging from basic computer skills to cosmetology. Workers seeking higher education can take advantage of our associate and bachelor's degree programs. In 2016, Apple enrolled 2500 workers in SEED's higher education degree programs, bringing the total number of participants receiving associate and bachelor's degrees to more than 10,600 for the program's history. To date, over 2.1 million workers have participated in SEED, with over 700,000 participants in 2016 alone.

A move to mobile platforms.

To better educate and inform our workers, we took advantage of a device they use every day: their smartphone. Through worker-focused mobile platforms, more than 80,000 workers took part in English skills training in 2016. And nearly 260,000 workers completed Environment, Health & Safety ("EHS") courses by completing more than 3 million tests. Another 315,000 workers leveraged our career growth skills training to enhance their professional abilities.

"I have only had the software for a month, but in that month it has become indispensable. I love learning, taking quizzes, and challenging others on the platform. Doing this allows me to increase my knowledge and makes me a better leader. The feeling that I get as I learn every day is hard to express in words."

Wu Jia Xin, operator at a component manufacturing supplier site

Case Study

Turning education into opportunity.

Jiang Hong Liu is an experienced manager at Foxconn with two university degrees. It's a future she never imagined when she started on the assembly line as a technician.

One afternoon, she was walking down a hallway at Foxconn when she spotted a Supplier Employee Education and Development (SEED) program poster. Jiang had always wanted to attend a university, but her family's circumstances had made that impossible. SEED allowed her to pursue a degree and still be able to work to support her family. She started with an AA degree, then received her BA degree a few years later.

Her persistence and determination were rewarded. Over the years, Jiang moved up the ranks at Foxconn, receiving multiple promotions from her first job as a technician to becoming manager of her own team.

"I love what I do. Apple's education program really helped me a lot in my career development. My improvement in English also enabled me to communicate with clients and manage projects independently. I wouldn't have the career I have now without SEED."

Jiang Hong Liu



Jiang Hong Liu in front of the Foxconn campus.

Education is a very effective safety tool.

In 2013, we launched the Apple Environmental Health and Safety Academy ("EHS Academy") after we identified a gap in skills needed to proactively address and manage workplace health, safety, and environmental concerns. By teaching the talent in our supply chain important environment, health, and safety skills, we also help them find opportunities to advance. The EHS Academy is a hands-on way to educate local managers on environmental protection, air pollution, water management, chemical management, emergency preparedness, and safety equipment. In addition to their coursework, managers must create and implement projects to improve environment, health, and safety conditions at their facilities. To date, EHS Academy participants have launched over 3300 of these projects at 270 supplier sites, creating real impact outside the classroom.

Case Study

Different people and skills come together for copper recycling.

FW, Tom, and Bonnie all work in different departments across Flexium, a manufacturer of flexes in Suzhou, China. After meeting while enrolled in Apple's EHS Academy, these three were inspired to work together as they continued their EHS Academy coursework.

One of the EHS Academy's focus areas is water management, where trainees learn wastewater treatment methods, including pollutant removal, recycling, and reclamation. Tom, Bonnie, and FW applied what they learned to the wastewater at their facility. Tom assessed the risks and benefits of treating copper-based wastewater and researched the legal factors. FW presented the project to Flexium executives to obtain budget and resources. Bonnie coordinated the project across the company because it required many different skill sets, including construction vendors and testing engineers.

In the end, they implemented a program to reclaim copper from Flexium's wastewater using electrolysis. They now sell the copper to a third-party vendor instead of paying for its disposal. The project utilized what they learned from EHS Academy's water management and solid waste management courses—plus it operationalized the concept of resource recycling.

"Not only did Apple's EHS Academy offer practical coursework, it also offered leadership classes that included soft skills like communications and executive briefing, which helped us collaborate across the company in a way we never had before," says Tom.

The project enhanced Bonnie's job skills and enabled her to grow. "Before the Academy, my job entailed simply reading policies and procedures to different departments, but following the leadership course, I am able to use employee communications techniques that allow me to influence positive EHS changes across the company," she says.



FW, Tom, and Bonnie stand near the water treatment facilities at Flexium in Suzhou, China.

More than

22k
survey responses
received in 2016

A worker's voice should be heard.

With a goal of giving workers a platform to speak up if they believe their rights have been violated, Apple provided survey access at supplier sites allowing workers a way to anonymously report grievances. These surveys were delivered using social media and interactive voice response via phone calls that workers could make free of charge. The program began with three facilities in 2014, and has now grown to 29 locations, including final assembly sites and component manufacturing locations. In 2016, we received more than 22,000 survey responses. These responses enabled us to provide suppliers with direct input on areas for improvement at their facilities.

A third-party auditor and a refinery employee review documents.



Responsible Sourcing

Our commitment to responsible sourcing goes well beneath the surface.

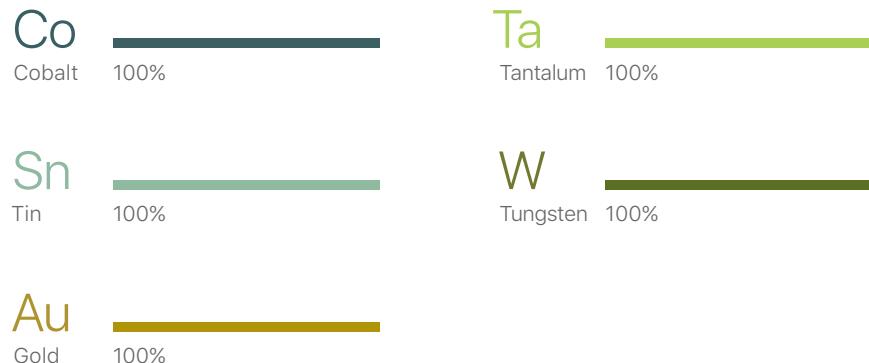
Apple is deeply committed to the responsible sourcing of materials for our products and we've led the industry in establishing the strictest standards for our suppliers. In 2010, we were the first to map our supply chain to the smelter level for tin, tantalum, tungsten, and gold (3TG). In 2015, we added cobalt. For the second year in a row, 100 percent of our 3TG smelters and refiners are participating in an independent third-party audit. We now require our cobalt smelter and refiner partners to assess and manage risks in their own operations, and 100 percent of our cobalt suppliers are participating in independent third-party audits as well. We continue to publish a list of our 3TG smelters and refiners and we are now including cobalt. Additionally, we are working with our suppliers and stakeholders to ensure that all artisanally sourced material in our supply chain be verified as responsible. We know our work is never done, and we will continue to drive our standards deep in our supply chain.

It starts with mapping our supply chain.

To help mining communities and protect the environment, we first need to identify where the minerals in our products come from. In 2010, we were the first to map our supply chain from finished product to smelter for 3TG. And we were also the first to transparently list all of the identified 3TG smelters in our supply chain. We continue to publish a list of our 3TG smelter and refiner names in our supply chain.

Similar to our work on 3TG, we have been extensively engaged with our cobalt supply chain. We began investigating risks surrounding cobalt in late 2014, and began mapping our cobalt supply chain down to the mine level in 2015. And for the first time, we are disclosing our cobalt smelters and refiners.

Materials Mapped to Smelter and Refiner

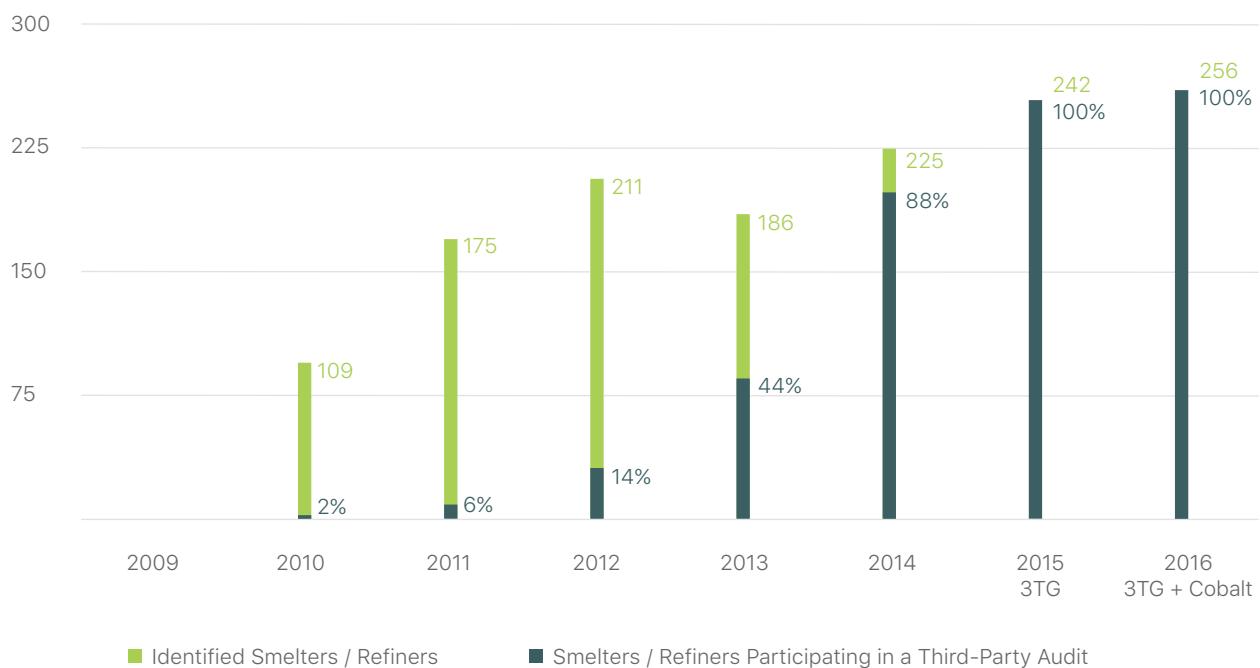


Upholding our standards through third-party verification.

Working with independent assessors is a way to make sure our smelters' operations adhere to our strict due diligence requirements. We have driven a steady increase in smelters and refiners participating in an independent third-party conflict minerals audit, and in 2016, our goal of 100 percent audit participation of 3TG smelters and refiners was once again reached. In 2016, we also partnered with the China Chamber of Commerce of Metals, Minerals and Chemicals Importers & Exporters ("CCCMC") to develop a third-party audit program for cobalt. Now that all smelters and refiners in our cobalt supply chain are required to participate in a third-party audit program, we will work to ensure corrective actions are taken to address the issues found.

The number of 3TG and cobalt smelters and refiners participating in an independent third-party audit reached 256 in 2016. Additionally, Apple conducted dozens of spot audits on production suppliers to assess their understanding of our due diligence requirements. Participation in auditing programs continues to play an effective role in assuring that smelters and refiners have systems to map their sources and potential relationship to key risks. Despite efforts to help all smelters and refiners understand our expectations, we removed 22 of them from our supply chain in 2016 because they were either unwilling or unable to comply with our standards.

3TG + Cobalt Third-Party Audit Participation



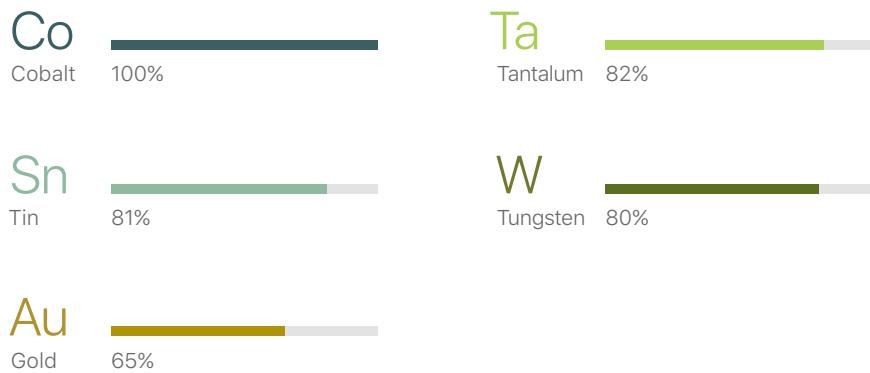
Innovation at work: creating a first-of-its-kind risk assessment tool.

In 2016, we expanded our responsible sourcing requirements to a much broader set of issues, including a more explicit approach to forced and underage labor, health and safety, and environmental impacts worldwide. In order to do so, we needed to make it simpler and more efficient for smelters and mines to assess their own risks, so that companies like Apple can find and source the most responsible material available. No existing toolset was flexible enough to assess the diverse set of risks across materials, geographies, and entities specific to our supply chain. So we created an easy-to-use risk assessment tool.

We started by examining over 50 of the world's leading social and environmental risk standards taken from several relevant industries. We then distilled these practices to a set of 24 key areas of ethical practices. We broke out each area with simple inquiries for suppliers to consider in their own businesses. By answering these questions, our suppliers can easily identify risks and report on how they manage challenges in their own operations. We call this a Risk Readiness Assessment ("RRA").

The RRA tool was used by 193 smelters and refiners in 2016, including a majority of our 3TG and cobalt smelters and refiners. These evaluations are used to assess threats to human rights and environmental protections, identify systemic risk on a geographic basis, and drive procurement decisions. Starting in 2017, RRA completion has become a mandatory requirement for our tin, tantalum, tungsten, gold, and cobalt smelters and refiners.

Smelters and Refiners Using the RRA Tool



We believe every company should have access to a comprehensive methodology for reporting their supply chain risk management. We presented the RRA methodology at the 2016 EICC and Conflict-Free Sourcing Initiative ("CFSI") annual conferences. Through the EICC's platform, the RRA will be made available for all members and interested parties. The RRA was designed for companies at all tiers within a supply chain and can be applied across industries. We aim to help other companies make informed sourcing choices as part of their own responsible sourcing.

Going beyond audits.

In addition to driving our standards through third-party audits at the smelter level, we work deeper in our supply chain. We know there are real challenges with artisanal mining of cobalt, but walking away from it indefinitely would be harmful to communities who rely on this mining for their income. We are working with our cobalt suppliers and stakeholders on a program that will verify individual artisanal mines, according to our standards, and these mines will be allowed into our supply chain when we are confident that the appropriate protections are in place. We have also partnered with numerous NGOs to drive change, including Pact, who are working to provide essential health and safety training to artisanal mining communities, and build programs to help children stay in school. And we made a grant to the Fund for Global Human Rights, an international organization that provides financial and other support to grassroots organizations in the Democratic Republic of Congo, who are working to end child labor and human rights abuses in mining communities.

Our work is ongoing, but by strengthening due diligence at every level of our supply chain, and partnering with like-minded companies and organizations, we will continue to pursue the protection of human rights and the environment around the world.



An operator uses a manipulator to safely place a roll of plastic onto a pallet.

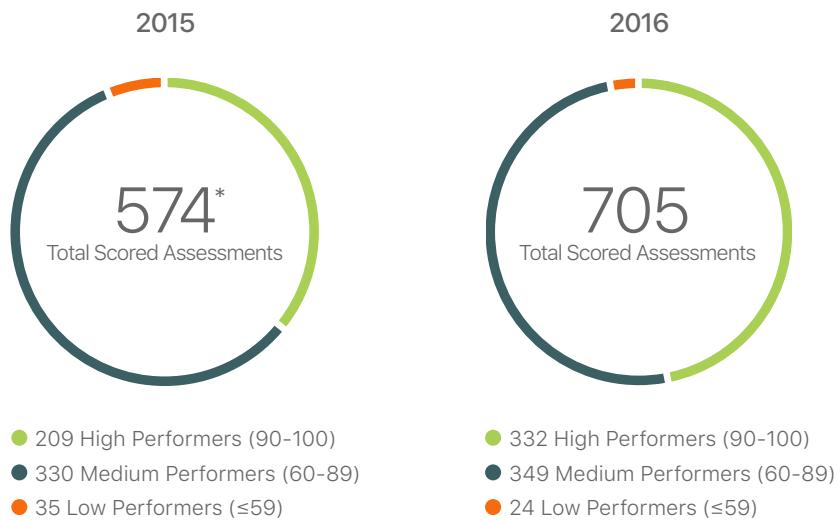
2016 Assessment Scores

**Stronger partnerships result
in stronger scores.**

Our 2016 supplier assessment results indicate performance and compliance gaps for 705 manufacturing, logistics, and contact center facilities.

Each assessed supplier site is ranked on a 100-point scale based on its performance relative to our Code of Conduct. A score of 90 to 100 is representative of a high performer. A score less than or equal to 59 is representative of a low performer. A score of 60 to 89 is representative of a medium performer.

In 2016, low-performing sites in our supply chain decreased by 31 percent, while the number of high-performing supplier sites increased by 59 percent.



*66 non-numerically scored management system assessments for sustaining high performers are excluded from 2015 assessment count.

2016 Assessment Scores.

When we assess a supplier's Code of Conduct performance, we uncover areas for improvement of varying degrees. We categorize our non-compliance findings in three degrees of severity: administrative non-compliance, violations, and core violations.

Administrative non-compliance denotes policy, procedure, training, or communication-related findings. Examples include:

- Inadequate record keeping
- Inadequate documentation of policy or procedures
- Insufficient training on policy

Violations denote implementation-related findings. Examples include:

- Insufficient provision of benefits
- No or inadequate pre-placement/on-job/post-employment occupational health check
- No or inadequate environmental permits

Core violations include what Apple considers the most serious breaches of compliance. These are issues for which we have zero tolerance.

Examples include:

- Underage workers or involuntary labor
- Document falsification
- Intimidation of or retaliation against workers
- Environmental and safety threats

Our 2016 assessment results highlight our findings and resulting actions across Labor and Human Rights, Health and Safety, and Environment.

2016 Assessment Results

Labor and Human Rights

In 2016, 22 core violations were uncovered in labor and human rights; these included 10 bonded labor violations, 9 working hours falsification violations, 2 harassment violations, and 1 underage labor violation involving a worker who was 15½ years old.

For each, we took the following actions:

Bonded labor

Because we do not allow any fees to be charged to workers for recruitment, every case requires the supplier to conduct a full investigation on any recruitment fees paid by the employee. If the violation is proven, the supplier must repay the recruitment fees in full to the employee. The supplier must also end their relationship with private employment agencies that charge employees upfront recruitment fees unless the agencies demonstrate a commitment to improve their practices.

Harassment

When a core violation involving harassment is discovered at a supplier, we require them to investigate the root causes and the effectiveness of their grievance system. The supplier must report the results to Apple and provide a corrective action plan that includes root cause analysis and detailed steps to prevent recurrence.

Underage labor

When underage labor is identified, the supplier must immediately return the underage worker safely home, pay their wages until they reach legal working age, provide them with an educational opportunity, and offer them reemployment when they are of legal working age.

Working hours falsification

If falsification of employee working hours is found, we escalate the violation to the supplier CEO. The supplier's ethics policy and management system are then thoroughly reviewed to identify the root causes and fill the gap. We also require the supplier to undergo regular audits to ensure the reviewed policy is implemented to prevent future violations. In addition, the supplier must revise all records to reflect an accurate accounting of hours worked by their employees.

The average Labor and Human Rights assessment score across our 705 supply chain assessments in 2016 was 85 out of 100.

Labor and Human Rights Compliance



The bar for Labor and Human Rights performance was raised in 2016. For example, in cases where foreign workers paid fees to private employment agencies before being reimbursed by the supplier, we enhanced our requirements to mandate that suppliers should pay such recruitment fees directly to the private employment agency, thus avoiding putting workers in a debt situation. In 2016, 15 such situations were remedied.

Protections for student workers became stronger as well. In some countries, student interns are legally entitled to a lower pay rate than normal workers. In 2016, we modified our Code provisions to ensure that our suppliers were compensating student workers comparable to regular workers. As a result, we detected and remedied three such instances in the year.

For those who scored below our standards, the majority of violations found were related to compensation and working hours. Examples of compensation violations include improperly detailed pay slips or an inadequate written policy on wages and benefits. Examples of a working hours violation include inaccurate record keeping or insufficient provisioning of mandatory days of rest. A lower percentage of assessment violations were found relating to anti-discrimination and anti-harassment, grievance mechanisms, and processes related to the protection of special classes such as juvenile and student workers.

Labor and Human Rights

Average Points Deducted for Non-Compliance* : **15.4**

Non-Compliance Type	Total Points Deducted	Points Deducted		
		Administrative Non-Compliance	Violation	Core Violation
Compensation	4.7	0.3	4.4	0
Working Hours	4.6	0.6	3.9	0.1
Prevention of Involuntary Labor	1.9	1.1	0.7	0.1
Contracts	1.2	<0.1	1.2	0
Anti-Discrimination	0.8	0.5	0.3	0
Anti-Harassment and Abuse	0.6	0.4	0.2	<0.1
Grievance Mechanisms	0.6	<0.1	0.5	0
Protected Classes	0.5	<0.1	0.4	0
Freedom of Association and Collective Bargaining	0.3	0.1	0.2	0
Prevention of Underage Labor	0.2	0.2	0	<0.1

*Deductions may not amount to totals due to rounding

2016 Assessment Results

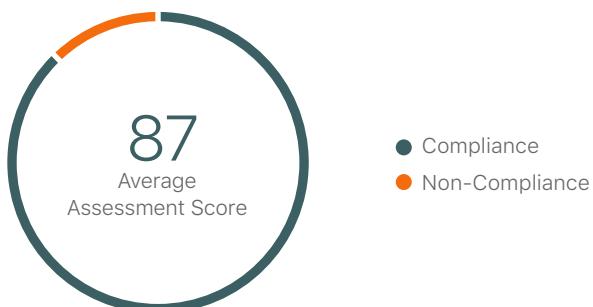
Health and Safety

In 2016, we discovered no core violations in the Health and Safety category.

The average Health and Safety assessment score across our 705 supply chain assessments in 2016 was 87 out of 100.

Health and Safety

Compliance



For those suppliers who scored below our standards, the majority of violations found related to hazard prevention and emergency preparedness.

Examples of hazard prevention violations include inadequate signage or insufficient use of machine or equipment guarding. For example, proper operation of laser machines requires both eye protection and protective shielding in front of the employee at all times. If we see that either is missing, we deem that a violation. When insufficient machine or equipment guarding is identified, we require the supplier to immediately suspend operation of the equipment and add the necessary protective equipment to the machinery before it can be put to use again. We also require the supplier to post signage indicating updated safety procedures established as a result of the new equipment guarding.

Examples of emergency preparedness violations include inadequate plans for emergency response and recovery planning or exit signage. For example, if an emergency response plan fails to contain detailed exit routes for all employees, directly responsible individuals for emergency contacts, or specific mitigation steps for each emergency including fire, chemical mishandling, or natural disaster, we deem that a violation. When inadequate plans for emergency response are identified, we require the supplier to

determine the evacuation assembly points for their employees in the event of an emergency, publish and post emergency evacuation maps and procedures onsite, and communicate these new procedures to their employees.

A lower percentage of assessment violations were related to health and safety permitting, incident management, and working and living conditions.

Health and Safety

Average Points Deducted for Non-Compliance*: **12.8**

Non-Compliance Type	Total Points Deducted	Points Deducted		
		Administrative Non-Compliance	Violation	Core Violation
Occupational Health and Safety Hazard Prevention	5.4	0.7	4.7	0
Emergency Prevention, Preparedness, and Response	3.8	0.9	2.9	0
Health and Safety Permits	2.0	0	2.0	0
Medical Surveillance and Incident Management	1.0	<0.1	1.0	0
Working and Living Conditions	0.6	0	0.6	0

*Deductions may not amount to totals due to rounding

2016 Assessment Results

Environment

In 2016, two core violations were found in Environment, including one wastewater violation and one air emissions violation. For each, we took the following actions:

Wastewater

With every wastewater violation, we require the supplier to immediately stop the wastewater discharge, including the suspension of production. The supplier must then conduct a comprehensive root cause analysis, implement actions to prevent future incidents, and remedy any environmental damage caused by wastewater pollution.

Air emissions

When an air emissions violation is identified, we make the supplier stop the air emission immediately and suspend production until the problem is resolved. We then require the supplier to conduct a thorough root cause analysis and develop a robust plan to prevent subsequent incidents.

The average Environment assessment score across our 705 supply chain assessments in 2016 was 87 out of 100.

Environment
Compliance



The majority of violations found in 2016 were related to hazardous substance management and environmental permits.

Examples of hazardous substance management violations include improper waste storage or inadequate segregation of waste types. For example, if we find storage facilities that do not allow for containment of 110 percent of the stored material in the event of a leak, we deem that a violation.

An example of inadequate segregation of waste types includes failure to completely separate hazardous waste material from non-hazardous waste material. When we uncover inadequate segregation of waste, we require the supplier to segregate the different types of waste immediately, and designate respective storage areas including secondary containment to store their waste. The supplier is also required to organize trainings for their waste handling staff to understand proper waste segregation and disposal procedures.

Examples of environmental permit violations include expired permits or insufficient operating licenses. We require suppliers to have all applicable permits in place before commencing production. When we identify insufficient permits, we require the supplier to immediately register the needed permits with local offices and follow the necessary regulatory process to apply for permits. The supplier is also required to enhance their change management procedure to prevent future incidents.

We found a lower percentage of assessment violations in stormwater and wastewater management, air emissions management, non-hazardous waste management, boundary noise management, and pollution prevention.

Environment

Average Points Deducted for Non-Compliance*: **13.2**

Non-Compliance Type	Points Deducted			
	Total Points Deducted	Administrative Non-Compliance	Violation	Core Violation
Hazardous Substance Management	4.6	0.7	3.9	0
Environmental Permits	2.8	0	2.8	0
Stormwater Management	1.6	0.8	0.8	0
Air Emissions Management	1.3	0.3	1.0	<0.1
Wastewater Management	1.2	0.5	0.6	<0.1
Non-Hazardous Waste Management	1.0	<0.1	0.9	0
Boundary Noise Management	0.6	0.2	0.4	0
Pollution Prevention & Resource Reduction	0.1	0.1	0	0

*Deductions may not amount to totals due to rounding

Looking forward.

Every day, we have the opportunity throughout our supply chain to leave the world better than we found it. It's a challenge that never ends. By holding our suppliers accountable to the highest standards and partnering with them to make lasting change, we remain steadfast in our commitment to improve lives and protect the environment.

For more information about Apple's Supplier Responsibility Program, visit www.apple.com/supplier-responsibility.

