

Google

Supplier Responsibility Report

2024





What’s inside

About this report

First launched in 2012, Google’s Supplier Responsibility program encompasses suppliers providing a wide range of products and services. Suppliers are held accountable to our [Supplier Code of Conduct](#), and our site assessment program prioritizes hardware, logistics, and extended workforce suppliers.

In 2017, we published our first Supplier Responsibility report, which outlined our framework, tools, and key performance metrics. This report covers our 2023 fiscal year (January 1 through December 31, 2023) and showcases our ongoing dedication to the well-being of individuals and communities within our supply chain. It also highlights several key 2023 projects that illustrate the program’s achievements, challenges, and aspirations. All reported data is global and annual unless otherwise specified.

For more information about our Supplier Responsibility program—including case studies, white papers, and blogs—please visit our [Supplier Responsibility website](#).

Additional resources

- [Statements Against Modern Slavery \(2023, 2022, 2021, 2020, 2019, 2018, 2017\)](#)
- [Supplier Code of Conduct](#)
- [SEC filings \(2023, 2022, 2021, 2020, 2019, 2018, 2017\)](#)
- [Supplier Responsibility Reports \(2023, 2022, 2021, 2020, 2019, 2018, 2017\)](#)
- [Sustainability Reports](#)

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Introduction

Executive letter: Supplier responsibility at Google

About our suppliers

Executive letter: Supplier responsibility at Google

At Google, our mission is to organize the world's information and make it universally accessible and useful.

We understand that a sustainable and responsible supply chain is essential to this mission, so we work hard to ensure that our products and platforms—from the data centers powering our cloud services to devices like Pixel phones that put information at your fingertips—are built using responsible and sustainable business practices.

This year's report highlights our achievements in 2023 and our ongoing efforts to strengthen our Supplier Responsibility program. At its foundation is Google's [Supplier Code of Conduct](#), which outlines our requirements in areas such as labor and human rights, health and safety, environmental responsibility, ethics and compliance, and management systems—ensuring the ethical treatment of workers throughout our supply chain.

As part of our goal to consistently assess and improve our Supplier Responsibility program, we expanded our coverage in 2023 and we've

implemented two key enhancements in 2024. First, we're refining our risk assessment process for suppliers to enhance our ability to manage risk and drive positive change across our supply chain. This allows us to engage with a broader range of suppliers, proactively identify potential issues, and implement targeted mitigation strategies to prevent or remediate harm. Second, we've piloted innovative engagement strategies with supply chain workers. This pilot engagement prioritizes direct dialogue with workers to ensure fair treatment throughout the supply chain.

The above enhancements, coupled with ongoing supplier engagement and education efforts, support our commitment to working with suppliers that treat their workforce with dignity and respect, maintain safe and healthy workplaces, and conduct business ethically.

This report details our progress in prioritizing human and worker rights and ensuring safe working conditions across our supply chain. To learn more about Google's efforts toward net-zero emissions and supplier collaboration on environmental sustainability, please see our [Environmental Report](#).

In the face of shared global challenges, we're working with suppliers to foster positive change and drive collaboration where it counts. This is the time for greater ambition and bolder action; the insights, data, and stories in this report demonstrate our continued commitment to do our part in creating a brighter future for all.

Danielle Romain
Chief Compliance Officer

Ana Corrales
Chief Operating Officer,
Consumer Hardware

Monique Picou
Vice President,
Cloud Supply Chain & Operations

Bobby Dhanoa
Vice President,
Extended Workforce Solutions



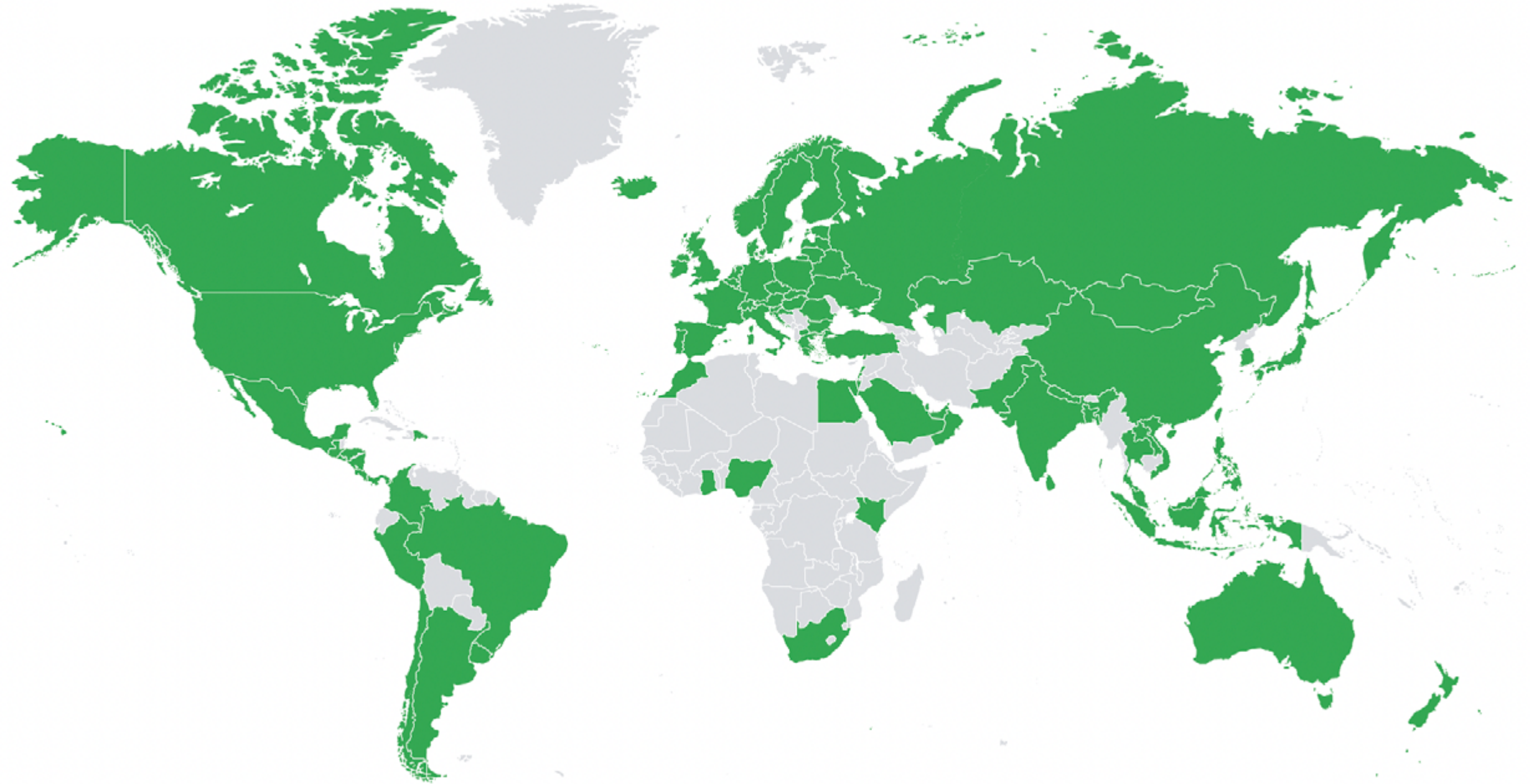
About our suppliers

We work worldwide with suppliers that support our business and operations, including hardware manufacturing and indirect services.

In doing so, Google is able to offer our core products and platforms—Android, Chrome, Gmail, Google Drive, Google Maps, Google Play, Search, and YouTube. The hardware in our data centers helps power all of those platforms, as well as a broader set of cloud-based products and services, including Google Workspace collaboration tools, and satellite mapping and analysis platforms like Google Earth. Our consumer hardware devices include Pixel, Nest, Fitbit, and more.

We work with suppliers in over

85
countries.



Our approach

The inclusive, tech-forward supply chain of the future

Meeting today's urgent global needs

Focusing on our people, communities, and planet

How we make it happen

2023 highlights

The inclusive, tech-forward supply chain of the future

We aspire to create a supply chain model for the future that accomplishes the following:



Includes everyone

We want to collaborate with suppliers and peers across industries and service sectors to create a safer, fairer, and more equitable supply chain.

Makes things better

We want our engagement efforts to make a positive impact on every supplier's workplace, community, and ecosystem.

Transforms with technology

We want to invest in and build technologies to create the world's most trusted supply chain.

Meeting today's urgent global needs

Responsible value chains can have a positive impact on workers and communities by providing beneficial, safe employment as well as investment in local economies.

However, subpar working conditions, poor health and safety practices, and unethical or illegal behavior persist as challenges.

Our goal is to drive meaningful and positive change in these areas. To that end, we are highly strategic in how we engage with suppliers, their communities, and the people and ecosystems that are integral to both. At every stage, we strive to understand the interconnected impacts of our supply chain and to have significant positive influence across all areas of our work.

This work requires collaboration, both internally and with partners, to determine

where we can have the most influence and make the biggest impact. It also requires ongoing transparency, dialogue, and accountability from everyone in our supply chain, along with a willingness to adjust our strategies and continually improve as we learn.

We benchmark across the industry to inform expectations for ourselves and our suppliers on both social and environmental performance. By investing in areas like worker engagement, ethical recruitment, health and safety, and supplier responsibility programs (with a focus on responsible chemicals and minerals supply chains), we're working to create stronger and more resilient communities. By partnering with nongovernmental organizations (NGOs), industry groups, peers, and suppliers, we'll continue our efforts to have a more positive impact on our suppliers and their communities.



Focusing on our people, communities, and planet

Our Supplier Responsibility program spans eight priority areas, which we’ve organized into three categories: putting people first, strengthening communities, and protecting the planet. This report addresses our commitment to the first two categories, while the third (the environmental impact of our supplier initiatives) can be found in our [2024 Environmental Report](#).

Putting people first

We’re committed to a fair and inclusive supply chain that creates shared value throughout our global footprint. This means:

Treating the people in our supply chain fairly

Creating safe and healthy workplaces

Operating ethically



Strengthening communities

We aspire to support local communities everywhere we do business. This includes uplifting livelihoods in communities along the supply chain.

Priorities include:

Sourcing materials responsibly

Increasing community resilience



Protecting the planet

We’re working to build an energy-efficient, low-carbon, circular supply chain that makes smart use of the Earth’s resources, protects ecosystems, and supports decarbonization. Please see our [2024 Environmental Report](#) for specific insights into our environmental priorities, such as:

Addressing the climate crisis

Working to increase resource efficiency and circularity

Expanding access to clean energy



These areas are interwoven and mutually reinforcing. For example, treating the people who work in our supply chain with dignity and respect creates stronger, more empowered communities. Investing in infrastructure in supplier communities generates more social and economic opportunities and helps reduce reliance on extractive industries such as mining. Replacing carbon-based energy sources with renewable options reduces greenhouse gas emissions and increases community and global well-being.

How we make it happen

Our program strategy is built on **five major pillars** that help mitigate risk and benefit people and places through responsible sourcing.



Supplier standards

Google maintains robust supplier standards to ensure ethical and responsible practices throughout our supply chain. These standards are anchored in our [Supplier Code of Conduct](#), which sets clear expectations for protecting the health, safety, and human rights of workers, including the prohibition of all forms of modern slavery.

The Supplier Code of Conduct is aligned with the Responsible Business Alliance Code of Conduct; international standards, such as the UN Guiding Principles on Business and Human Rights, ILO International Labour Standards, and the Universal Declaration of Human Rights; and Google’s values. Integrated into our supplier contracts, the Supplier Code of Conduct requires active adherence by all suppliers. To supplement the Supplier Code of Conduct, we have a [Policy Against Modern Slavery](#), which clearly defines modern slavery, gives a concrete list of prohibited actions, and provides guidance on how to address suspected policy violations.

Alphabet’s [Conflict Minerals Policy](#) directs suppliers to perform due diligence on the source and chain of custody of minerals used to manufacture products for Google. We expect our suppliers to source only from conflict-free smelters, such as those that are compliant with the Responsible Minerals Initiative’s (RMI) Responsible Minerals Assurance Process (RMAP) assessment protocols, and to work with their own suppliers to achieve conflict-free sourcing. Additionally, we provide support to suppliers who need it to achieve these objectives, through activities such as participating in efforts to increase RMAP conformance rates through smelter engagement.

Finally, Google’s [Restricted Substances Specification](#) sets a standard for the elimination of hazardous materials in all Google-branded consumer products, accessories, manufacturing processes, and retail packaging.



Supplier engagement

Through mechanisms such as self-assessments, risk assessments, and on-site third-party audits, we validate if and how suppliers are meeting our standards, identify potential risks, and address concerns. We also work closely with manufacturing suppliers to improve capabilities in areas like environmental performance, healthy and safe workplaces, and transparency in the mineral supply chain.



Partnerships

We partner with NGOs, industry groups, suppliers, and peers to tackle issues bigger than any company could address alone. Our partners bring a wide range of expertise and creative thinking to issues like modern slavery, worker well-being, impact sourcing, transparency, reliance on raw materials, access to electricity, and renewable energy markets.



Community investment

We work with supplier and upstream communities to minimize the negative impacts of manufacturing, improve lives, and protect the local environment. This includes collaborating with a range of local and global partners, stakeholders, and researchers to ensure community access to clean energy and related economic opportunities. We also work with communities and authorities to support conflict-free mining, and we invest in programs that create economic alternatives to mining for local citizens.



Worker engagement

Through anonymous worker surveys, face-to-face interviews, and pilot studies, we strive to create avenues for workers in our supply chain to provide feedback directly to our Supplier Responsibility program. This helps us identify and understand workers’ concerns and priorities, as well as evaluate whether our suppliers are providing just and favorable working conditions to the workers in Google’s supply chain.

2023 highlights

Putting people first

Underwent 207 on-site audits

Our suppliers underwent 207 on-site audits.¹

Engaged more than 10,700 people in our supply chain

We engaged more than 10,700 people who work in our supply chain through third-party surveys and interviews, and gained important insights into priority areas.

Hosted 731 participants at Supplier Responsibility Summit

More than 731 participants from 173 unique supplier organizations gathered at our annual Supplier Responsibility Summit to advance our shared commitment to promoting ethical practices across our supply chain.

Strengthening communities

99% of the smelters we used were compliant

In 2023, 99% of the smelters or refiners we used for four conflict minerals—tantalum, tin, tungsten, and gold—were compliant.² We're currently working to ensure the remaining 1% of smelters or refiners also achieve compliance.

More than 21,000 people provided with renewable energy access

Between 2018 and 2023, the Congo Power program completed 14 projects, which have provided renewable energy access to over 21,000 people in the Democratic Republic of the Congo.



Putting people first

Overview

Laying a foundation for fairness

Creating safe and healthy workplaces

Setting a high bar for ethics

Assessing conformance with our Code of Conduct

Site assessments

Correcting nonconformance

2023 audit conformance data

Overview

We're committed to building a healthy, inclusive supply chain. This means honoring and respecting everyone who engages with the Google supply chain and striving to ensure that their workplaces promote worker well-being. Our baseline is to ensure that Google treats every person working in our supply chains with dignity and respect, maintains safe and healthy workplaces, and holds suppliers to high ethical standards. But our long-term goal is more ambitious: to work alongside companies, suppliers, and users to create a safer, fairer, and more equitable and inclusive supply chain.



Laying a foundation for fairness

We believe every person working in our supply chain should be treated fairly and with respect. We accomplish this with policies and processes designed to protect the people who make our products and provide valuable services to our company.

The foundation of this work is our Supplier Code of Conduct, which includes our expectations for labor and human rights, health and safety, environmental responsibility, and ethics and compliance. We hold suppliers accountable to our Supplier Code of Conduct through a multi-step assessment process, as outlined in the “Assessing conformance with our Code of Conduct” section below.

Engaging people in our supply chain

Our suppliers’ employees often provide the most valuable insights into what’s working and what needs improvement. Hearing directly from them is a crucial component of our audits and broader supplier engagement. In 2023, our worker engagement program continued to focus on identifying employees’ challenges and concerns, particularly regarding our Supplier Code of Conduct.

We gather feedback through anonymous worker surveys and face-to-face interviews. A comprehensive survey, customizable to each supplier, invites workers and supervisors to share their anonymized concerns and recommendations in areas such as working conditions, health and safety, wages and benefits, working hours, and communication

with management. We also release a standardized questionnaire to gauge the general sentiments of the people in our supply chain.

In 2023, we heard directly from more than 10,700 workers and community members throughout our supply chain and nearby communities via our surveys and audits. As we gather feedback, we prioritize the areas that workers identify as the highest importance to them.

Case study: Developing dialogue with stakeholders

According to the 2019 National Population and Housing Census, Vietnam counted 6.4 million internal migrants, accounting for 7.3 per cent of the country’s population of five years and older. Migrant individuals in our supply chain are often vulnerable to unethical recruitment and employment practices.

In 2023, we launched a three-phase project with the International Organization for Migration (IOM) to examine how we can better support and advance worker and community well-being. IOM is part of the United Nations system, and the leading intergovernmental organization dedicated to promoting humane and orderly migration. Specifically, the project focuses on two of our strategic supplier sites in Vietnam and will test novel approaches for worker and community engagement, further our root cause understanding of systemic issues (e.g., relating to recruitment, working hours, and working conditions), and more broadly inform our capability-building strategies in this space.

The first phase in December 2023 focused on workers’ well-being, interests, and priorities at work, home, and in their communities. IOM applied its unique expertise on labor migration to design an intersectional data collection methodology, implementation, and analysis. Suppliers also contributed ideas for topics to include in surveys, discussed findings, and brainstormed possible approaches based on firsthand experience. The first round of data collection included an anonymous online survey, on-site focus group discussions, and key informant interviews with over 600 workers. We expect to conclude the second phase of the project, and launch the third phase, in 2024.

Aggregated data and analysis from all phases of the project will be shared with suppliers. The exploratory design of this project provides unique opportunities to gather holistic insights directly from workers and their communities, and will inform future projects and strategies for advancing workplace well-being throughout our supply chain. This includes convening a collaborative, cross-sector dialogue to share learnings, good practices, challenges, and recommendations for ethical recruitment, employment, and management of workers, including internal migrant workers.



SPOTLIGHT

A holistic approach to understanding workers in our supply chain

Addressing the real needs of local and migrant workers and communities throughout the supply chain requires nuanced, in-depth investigation and collaborative solutions beyond surveys and prescriptive corrective actions. This approach recognizes that workers’ interests and priorities extend beyond their immediate work environment and encompass their mobility and overall quality of life in their respective

communities; with this lens, supporting and remediation actions can be centered on workers’ own priorities, perspectives, and definitions of what constitutes improvement of well-being. Our recent collaboration with the International Organization for Migration (IOM) is developing valuable insights for advancing worker and community well-being throughout supply chains.



Gathering feedback directly from workers is critical for identifying and addressing the issues that matter most. Google is testing various methods of collecting this feedback, and we’re partnering with IOM and our suppliers to ensure that it’s acted upon, to show workers that their voices are valued.



Natalie Giggy
Program Manager



In prioritizing ethical recruitment and employment, as well as the well-being of workers and communities affected by their operations, corporations sow the seeds for a sustainable and inclusive future. IOM will continue engaging in strategic partnerships with the private sector to deliver innovative solutions to enhance worker voice and multi-stakeholder dialogue.



Park Mihyung
Chief of Mission, IOM Viet Nam

Creating safe and healthy workplaces

Workplace safety is a top priority, now more than ever. We remain committed to ensuring that everyone who makes our products or provides us services works in a healthy and safe environment.

In accordance with our Supplier Code of Conduct, our suppliers are expected to maintain workplaces that comply with all applicable laws and to implement a management system for identifying and resolving related issues.

Suppliers must identify, evaluate, and control worker exposure to all safety and health hazards—including chemical, biological, physical, and ergonomic stressors—and must provide proper design, controls, procedures, and guidance in factory production and other work environments. We expect suppliers to plan for potential emergencies by implementing controls, training all appropriate personnel, and providing personal protective equipment.

Further, to uphold just and healthy working conditions, suppliers must provide employees with ready access to clean toilet facilities, potable water, and sanitary food preparation, storage, and eating facilities. If provided, housing facilities must be clean, safe, and fair, and include adequate personal space and hot water for bathing and showering.

Driving healthier manufacturing processes

Google actively collaborates with suppliers and industry partners to identify and eliminate harmful substances from our manufacturing process. We provide the knowledge and support necessary to transition to safer alternatives. All suppliers are required to

comply with our [Restricted Substances Specification \(RSS\)](#), which prohibits specific substances of concern in Google-branded consumer products, accessories, data center products, manufacturing processes, and retail packaging. In 2023, we updated our RSS to include:

- Restrictions on all PFAS materials, as well as flame retardants, solvents, cleaners, and degreasers classified in ChemFORWARD's highest hazard band (F), prohibiting their use without prior authorization from Google.
- Enhanced requirements for children's products.

To ensure supplier compliance, we implement a multi-faceted approach:

- Collect Full Material Disclosure (FMD) and Manufacturing Restricted Substance List (MRSL) data.
- Conduct on-site chemical management assessments (CMAs).
- Educate suppliers on mitigating occupational health and safety risks associated with chemical use.

Our FMD program gives us an in-depth understanding of how process chemicals are used during manufacturing or maintenance. By collecting data on the types of chemicals used and their associated processes, we can evaluate occupational exposure risks and help suppliers minimize these risks and phase out restricted substances.

Launched in 2021 at key contract manufacturing sites, the FMD program has expanded to include final assembly manufacturing sites, reaching a total of 63 sites by the end of 2023. During 2023, we evaluated 19 facilities and 78 associated chemical processes, assessing their applications and exposure control measures.

Based on these assessments and follow-up investigations with suppliers, we provided consultations and facilitated the adoption of safer alternatives for high-toxicity chemicals. This initiative has improved workplace safety for over 700 people who directly handle chemicals at these sites.

We also operate an MRSL assessment and declaration program, coupled with comprehensive training, to gather information from suppliers regarding their use of manufacturing restricted substances.

As part of the FMD and MRSL programs, we conduct on-site CMAs at suppliers' facilities to verify the efficacy of chemical hazard controls and provide consultation to help suppliers redesign their processes with safer alternatives. If a supplier fails to meet our safety standards, we create Corrective Action Plans (CAPs) identifying specific items for resolution. We also monitor supplier CAP progress to ensure thorough remediation.

In 2023, we conducted five on-site CMAs and identified 48 findings, all of which have since been fully resolved. Since the launch of our CMA framework, we've guided suppliers in resolving a total of 274 issues, significantly strengthening their overall chemical management systems and practices.

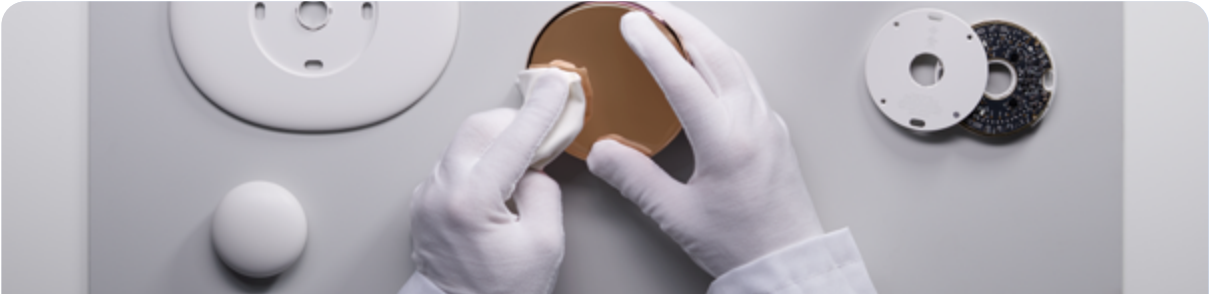
Beyond ongoing assessments, maintaining safe chemical management also hinges on comprehensive supplier education. We provide specification documents to help suppliers identify, assess, and mitigate occupational risks related to chemicals used in manufacturing. These guidelines require suppliers to comply with Google's RSS for all products and components they manufacture or provide to Google. Furthermore, manufacturing sites must establish and implement a chemical management program

to evaluate the purchase, use, transportation, and disposal of all hazardous chemicals. This includes training personnel who work with chemicals, conducting job hazard assessments, and implementing control mechanisms to protect workers and the environment.

To enhance supplier education, we have integrated guidance on Responsible Chemical Management (RCM) and our FMD program into the Responsible Business Alliance (RBA) platform, available in both English and

simplified Chinese. Since its inception, nearly 350 suppliers have completed our RCM training, with 83 completing it in 2023 alone.

These training sessions are mandatory for suppliers participating in our FMD and MRSL programs, which are selected based on their risk profiles and the potential chemical exposure associated with their processes. We also collaborate with strategic suppliers to promote RCM practices throughout their own supply chains.



Understanding chemical safety

Relying solely on the regulation of hazardous substances is insufficient due to the potential risks posed by replacement materials to workers and consumers. In an ideal scenario, comprehensive hazard assessments would be conducted for all chemicals used in manufacturing. However, such assessments have historically been prohibitively expensive and time-consuming, and their results have not been widely distributed.

Google has been supporting ChemFORWARD, a nonprofit organization dedicated to building a repository of chemical hazard data since 2017. In 2023, Google commissioned chemical hazard assessments for 27 unique chemical ingredients used in 23 coating and ink formulations, contributing these

assessments to the ChemFORWARD repository. By supporting research and making its growing database accessible to subscribers, ChemFORWARD accelerates knowledge dissemination and empowers engineers, companies, NGOs, and policymakers to make informed safety decisions.

This approach to material evaluation has been progressively integrated into Google's product development processes. For instance, during the evaluation of the ink used on the interior of the Pixel 7's back glass, ChemFORWARD was employed to screen 15 potentially safer solvents.

Learn more about the ChemFORWARD story [here](#).

Setting a high bar for ethics

We expect our suppliers to uphold high ethical standards, including not engaging—directly or indirectly—in corruption, bribery, extortion, embezzlement, discrimination, or other illegal practices.

To meet these standards, we encourage companies to disclose information about their business activities, financial situations, and performance in line with regulations and industry practices. Any nonconformance with our standards or other performance issues must be promptly addressed and remediated. We also expect our suppliers to protect confidential information from unauthorized access and cyberattacks.

Addressing ethical conduct and preventing modern slavery

In 2021, Google established a Human Rights Executive Council to guide and strengthen our commitment to human rights across our operations and supply chain. This council comprises senior leaders from relevant product areas and functions, and is led by our President of Global Affairs and Chief Legal Officer. The Council oversees the implementation of our civil and human rights work, including the prevention of modern slavery.

Forced labor, indentured labor, debt bondage, and other forms of modern slavery can occur in industries with many workers and few regulations. We have zero tolerance for any form of modern slavery in our supply chain. We continually review and improve our own processes to detect modern slavery in the supply chain, including new technology such as machine learning.

Google’s contracts require suppliers to comply with all applicable laws prohibiting human trafficking, forced labor, and modern slavery, as well as our Supplier Code of Conduct. The Supplier Code of Conduct, rooted in the United Nations Global Principles on Business and Human Rights and International Labor Organization Conventions, codifies our commitment to ethical and responsible business practices. We reserve the right to audit any facility where concerns of modern slavery are raised, and to terminate agreements with suppliers found in violation of these policies.

Each year, we hold at least one Supplier Responsibility Summit to exchange insights, align on sustainability objectives, and reinforce our shared commitment to responsible sourcing. We discuss ways to advance healthy, fair workplaces, accelerate accessible clean energy, and drive circular, waste-free operations.

During our annual Supplier Responsibility Summit in 2023, we trained 731 individuals from 173 supplier companies on sustainability and responsible labor practices.

We also train our vendors, temporary staff, and independent contractors to report concerns of illegal or unethical activity and to avoid working with parties that engage in modern slavery or other illegal practices. In addition, we provide an online training course that includes anti-modern slavery education for people who work in roles related to hardware supplier management.

Our anti-modern slavery program maintains our commitment to supply chain integrity. For more information, please see our Policy Against Modern Slavery, which defines modern slavery, lists prohibited actions, and provides channels for reporting concerns.

Read our [2023 Statement Against Modern Slavery](#).



SPOTLIGHT

Developing an inclusive economy

Google is dedicated to advancing supplier diversity, equity, and inclusion in our global business operations. Through our [Supplier Inclusion program](#), we provide diverse-owned businesses with access to opportunities, development

resources, and investment. This program reflects our belief that a thriving and inclusive economy benefits everyone. Details about achievements related to this program can be found in our [Diversity Annual Report](#).

Assessing conformance with our Code of Conduct

We follow a multi-step process for evaluating our suppliers. Performing regular assessments helps us to address potential issues early on, and to support our suppliers in taking corrective actions.

Supplier self-assessment process

Self-assessments kick-start the evaluation and risk assessment process. We ask all new suppliers to complete a detailed self-assessment that helps gauge their understanding of and commitment to our expectations. Their responses help us identify potential risks of nonconformance with the requirements in our Supplier Code of Conduct, and provide a launching point for suppliers to critically consider their own social and environmental impact.

Many suppliers already have strong programs that fulfill our requirements. When a self-assessment indicates that a supplier doesn't meet our expectations, we work with the supplier to ensure it develops programs to address our concerns.

Understanding and evaluating risks

In addition to having suppliers evaluate their operations, we perform our own ongoing due diligence to verify compliance and understand our supply chain's current and potential risks.

Our extensive Supplier Risk Assessment process evaluates the social, environmental, and ethical risks of working with individual suppliers or groups of suppliers. The results give our suppliers insights to help them make better-informed sourcing decisions and proactively manage their own supplier relationships.

When performing a Supplier Risk Assessment, we look at a variety of factors, including:

- **Country-level risks.** Are certain countries at higher risk for certain types of social or environmental problems?
- **Product- and service-specific risks.** Do suppliers use chemically intensive manufacturing processes? How physically demanding is the work involved?
- **Supplier fines or convictions.** Has the supplier previously been convicted of human rights, environmental, or corruption violations?
- **Google's supplier engagement efforts.** Has the supplier submitted a self-assessment? If problems were found during an audit, has the supplier taken steps to resolve them?
- **Supplier relationship.** How strategic is the supplier to our business? Do we influence the design of the product or the selection of the components?

FIGURE 1 Risk-based supplier engagement model



Site assessments

Findings from the self-evaluation and initial Supplier Risk Assessment determine whether we conduct additional assessments at suppliers' facilities. We prioritize on-site audits for our contract manufacturers, original equipment manufacturers, and suppliers identified as high risk.

Every Supplier Code of Conduct audit is conducted by an approved third-party audit firm to assess conformance with Google's standards and applicable laws and regulations. We also encourage our suppliers to participate in the Responsible Business Alliance (RBA) Validated Assessment Program (VAP) audits, and we began recognizing VAP audits for our higher-risk suppliers in 2023 (see [page 17](#)). These audits include in-depth factory,

facility, and dormitory tours, management meetings, on-site worker interviews, and reviews of the supplier's documents and records. Recognizing VAP standards is a key component of our strategy to align with and promote industry-wide efforts to drive collective change across global supply chains.

These assessments of our suppliers' facilities allow us to: determine whether the supplier is meeting our standards, hear directly from the people in our supply chain, and identify opportunities for our suppliers to address issues. Our audits also provide valuable opportunities to raise suppliers' awareness of their social and environmental responsibilities, promote accountability, understand leading practices, and encourage greater transparency.

FIGURE 2 2023 audit overview³

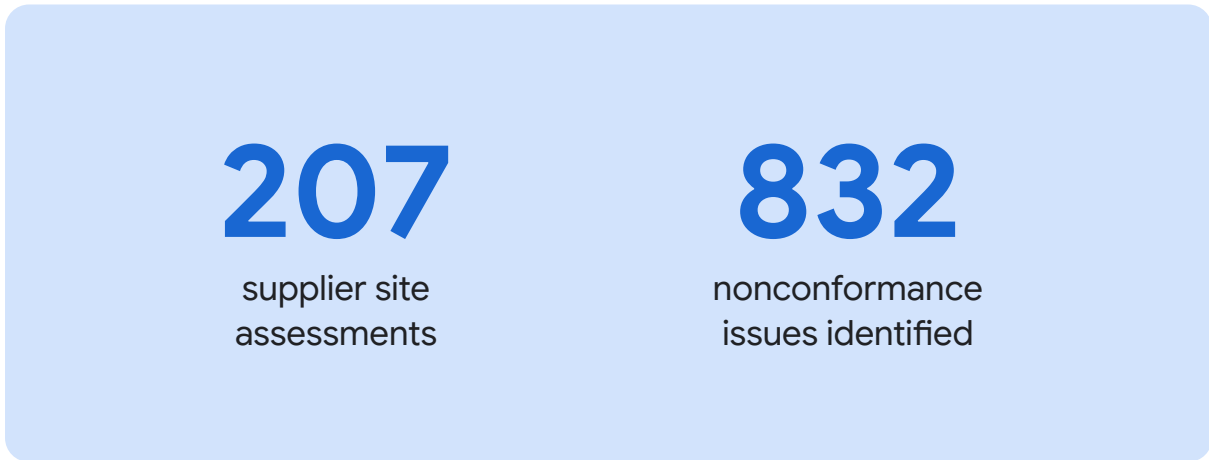
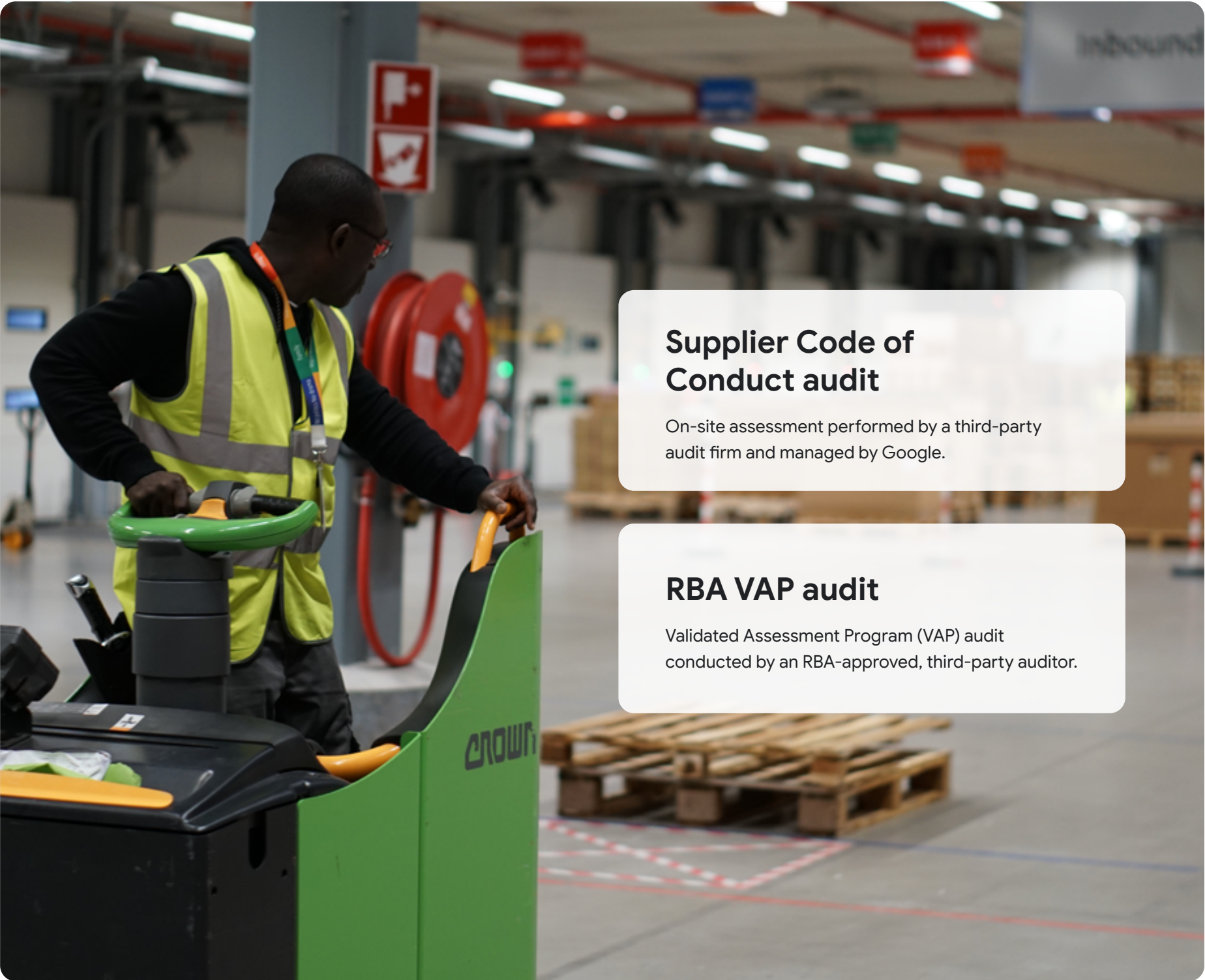


FIGURE 3 Our supplier site assessment types



Correcting nonconformance

When we find that a supplier isn't conforming to our standards, we expect that supplier to provide a corrective action plan (CAP) outlining the root cause of the finding, how and when that company will resolve the issue, and what steps it will take to prevent reoccurrence. We determine whether the plan is acceptable based on the severity of the nonconformance and the effort and time required to resolve the issue.

We expect suppliers to demonstrate improvements in order to continue working with us. Our goal is to resolve the most severe issues immediately. We expect all other findings to be resolved in accordance with our guidelines as quickly as is practical. While we work with our suppliers to help them address our findings, we may in some instances decide to terminate the relationship.

Once a CAP is approved, we expect the supplier to provide evidence of resolution and commit to maintaining those improvements over time, which may require follow-up verification. Once the supplier is able to demonstrate that it has successfully implemented the approved CAP, we change the plan's status to "closed" and continue to monitor risks at the supplier site.

Most common nonconformance findings in 2023

Because we frequently add and audit new supplier sites, the percentage of findings within each category and the most common types of findings tend to be similar from year

to year. While we actively work to reach 100% conformance, the remaining nonconformance findings may include ongoing or overdue CAPs, due to challenges in working with the suppliers or need for deeper investigation of the nonconformance (sometimes by independent parties).

In 2023, as previously mentioned, we began accepting RBA Validated Assessment Program (VAP) audits within our Supplier Responsibility program. This marked a shift in our approach, requiring us to pilot a new methodology for overseeing and collaborating with the RBA on CAP management with our suppliers. This also allowed us to broaden our audit program and expand further into our supplier base, leading to an increase in site assessments in 2023.

As a result of this pilot phase, many VAP CAPs were not implemented as quickly as Google-Managed Audit (GMA) CAPs had been in previous years. Consequently, our 2023 data shows fewer resolved CAPs and a reduced rate of improvement in conformance following CAP implementation. However, it's important to note that GMAs maintained similar rates of CAP closure.

Based on the valuable experience and insights gained in 2023, we have streamlined our oversight of RBA VAP CAPs to enhance efficiency and timeliness in future reporting years. This streamlined approach will ensure that we can effectively monitor and support suppliers in their remediation efforts, driving continuous improvement across our supply chain.

Working hours

In 2023, we found the most instances of nonconformance within the category of working hours—an area of continued focus

within the technology industry. Working excessive hours strains employees' physical and mental health, increases stress levels and risk of injury and accidents, and impairs personal relationships.

To ensure the people in our supply chain are not overworked, our Supplier Code of Conduct states that workweeks should either not exceed 60 hours (including overtime)

or should comply with the maximum set by local law, whichever is the stricter standard. Employees must also be allowed at least one day off every seven days.

We found an overall conformance rate over 31% in this category. This includes an 11% improvement following implementation of CAPs at supplier facilities. As previously noted, the pilot program for accepting RBA

VAP audits temporarily impacted the pace of CAP implementation compared to prior years. However, for our Google-Managed Audits (GMAs), we achieved a 52% increase in conformance after CAP implementation, reaching 84% conformance by the end of 2023. This GMA success rate is consistent with our performance in previous years.

FIGURE 4 Guidelines for corrective action plans (CAPs)

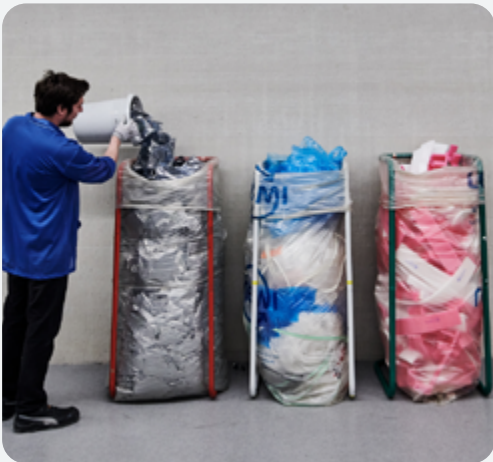


1. Create

Google: Provides an audit report to the supplier with identified nonconformance issues.

Supplier: Provides a root-cause analysis and proposed CAP within the applicable deadline (30 days of receiving the report, or sooner for Zero Tolerance and Priority findings).

Google: Reviews the proposed CAP and verifies acceptability.



2. Implement

Supplier: Begins to implement the CAP in accordance with the agreed-upon timelines, which depend on the severity of the nonconformance issue.

Google: Monitors CAP implementation and provides guidance as needed.



3. Monitor

Supplier: Monitors and reports CAP status until closure.

Google: Provides guidance as needed. Reviews final evidence of implementation and notifies the supplier if the CAP has been accepted or requires follow-up. Escalates overdue findings, verifies completed actions, and audits again, as needed, for Zero Tolerance, Priority, and Major findings.

Management accountability and responsibility

This category focuses on assessing and improving supplier management systems, which are often the underlying cause of other compliance issues. Robust management systems should include: clearly defined roles and responsibilities, supporting controls and policies, regular review and identification of improvement opportunities, corrective action processes to remedy nonconformances, and processes that ensure compliance with applicable laws, regulations, and customer requirements.

Inadequate or missing control mechanisms can lead to violations of workers' rights and unfavorable working conditions. These types of findings were the second most frequent nonconformances identified in our 2023 audits. We observed 66% conformance before CAPs, and 69% after CAP implementation. Addressing management accountability and responsibility findings requires more time and effort, as they necessitate systematic changes, sometimes at both the site and supplier levels.

Emergency preparedness

Our audits aim to protect the people in our supply chain from threats to workplace health and safety wherever possible—including those beyond our control. Emergency preparedness was the third most common area where we found nonconformance issues in 2023.

We require supplier facilities to adhere to fire codes, maintain adequate fire alarm systems, and practice emergency-response drills. Facility managers must train their employees to sufficiently detect potential emergency situations and follow response plans and procedures that focus on minimizing harm to people, property, and the environment.

After CAP implementation, we found 76% of audited suppliers in conformance with these standards.

Wages and benefits

We expect that everyone who works in our supply chain receives fair compensation, and we require our suppliers to pay their employees all legally required wages and benefits—this includes laws related to minimum wage and overtime compensation. The most common wages and benefits nonconformance findings related to required social benefits. After CAP implementation, over 76% of audited suppliers were in conformance with the expectations outlined in Google's Supplier Code of Conduct.

Occupational safety

To prevent injury and illness from workplace hazards—chemical, electrical, fire, vehicular, and others—suppliers must provide employees with appropriate protective equipment and procedures in compliance with our occupational safety requirements. When supplier facility managers can't eliminate hazards or control them with procedural redesigns or substitutions, suppliers must provide sufficient protection to all employees working directly with the hazards, such as personal protective equipment and ongoing training. In 2023, more than 83% of audited suppliers were in conformance with our occupational safety requirements.

The more we equip suppliers' employees with the necessary tools to identify, mitigate, and manage workplace risks, the safer their jobs—and the better their overall well-being.

FIGURE 5 Audit findings by category in 2023

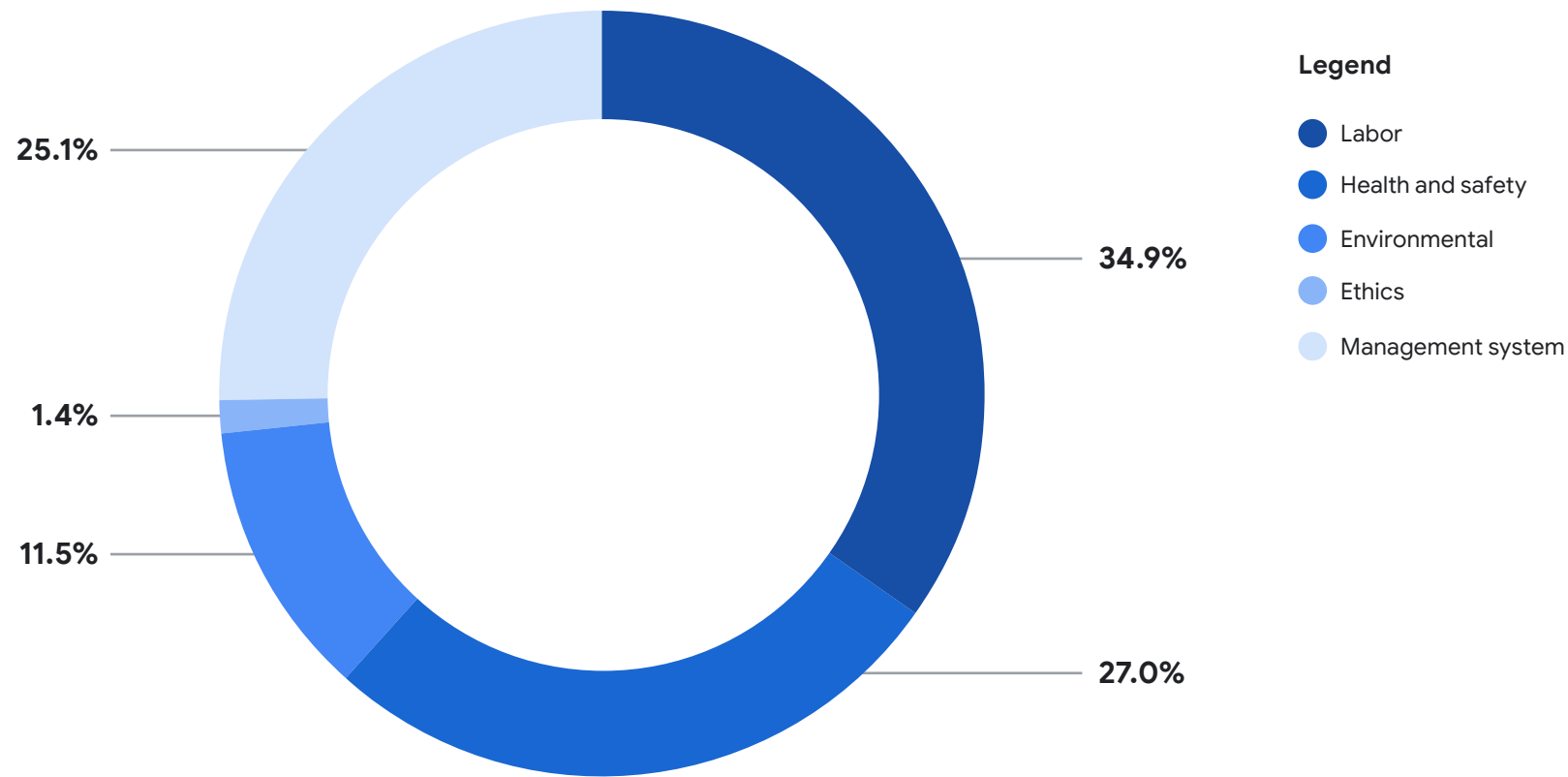
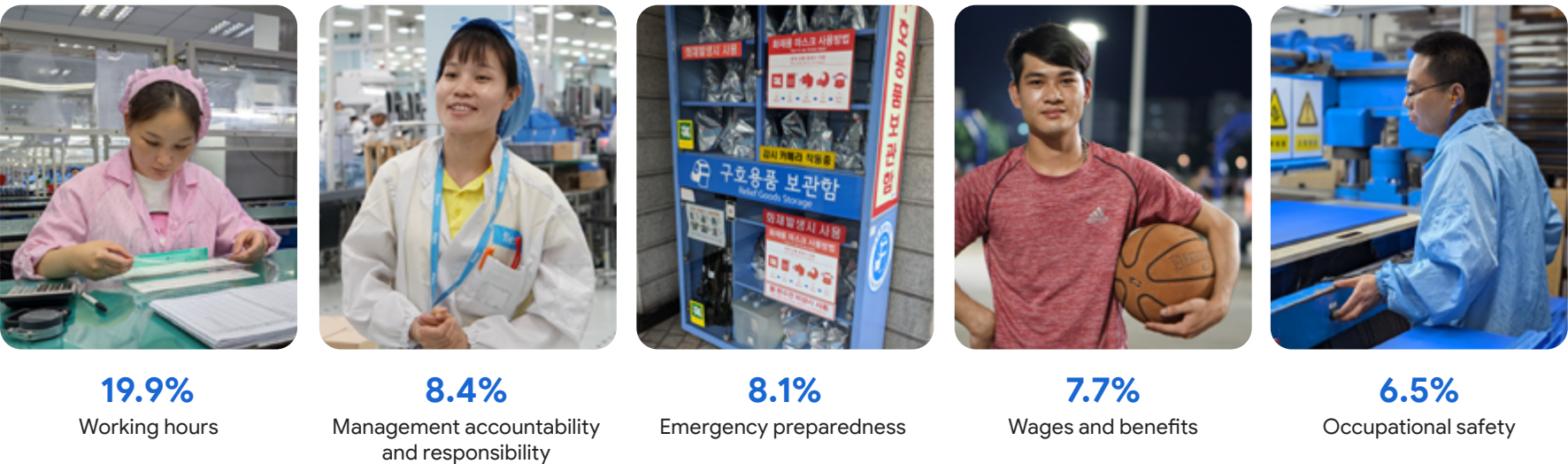


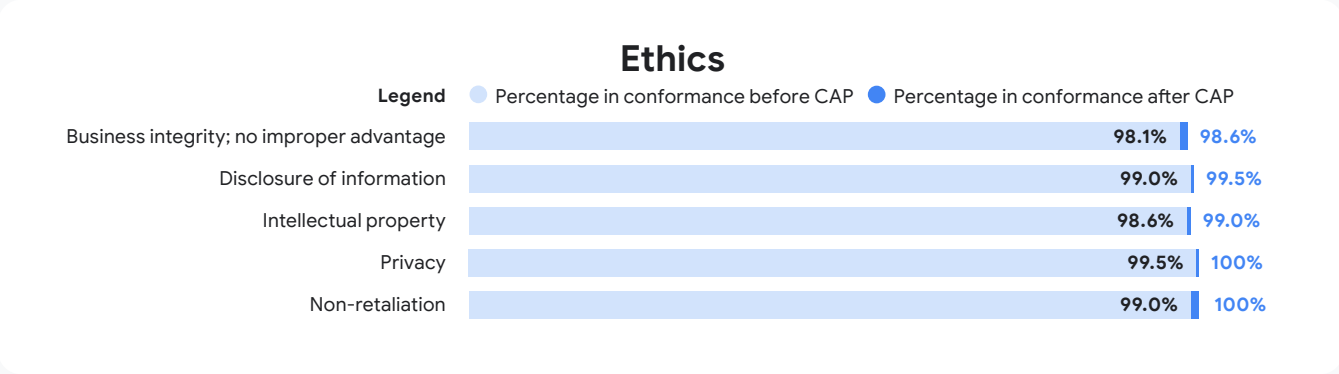
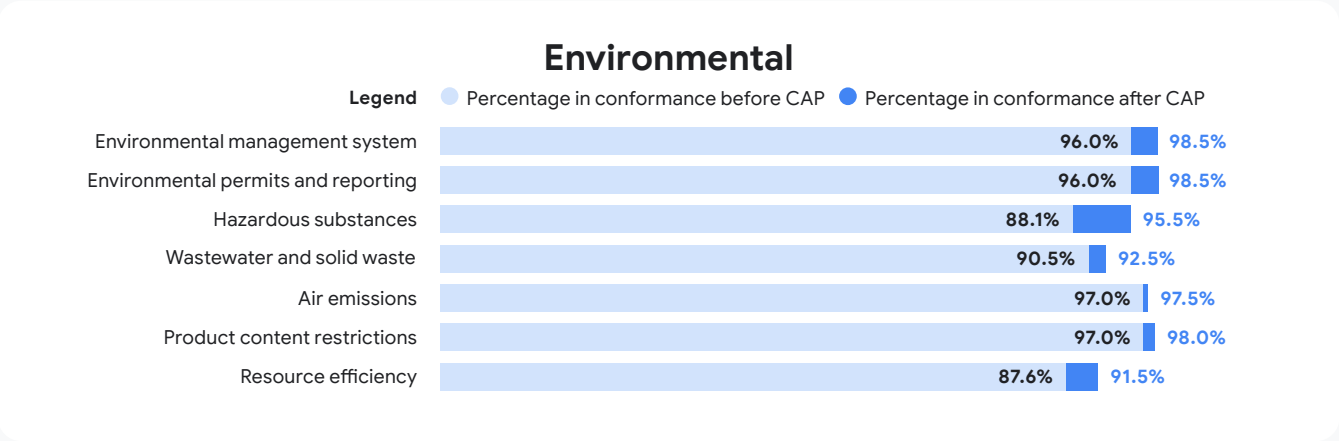
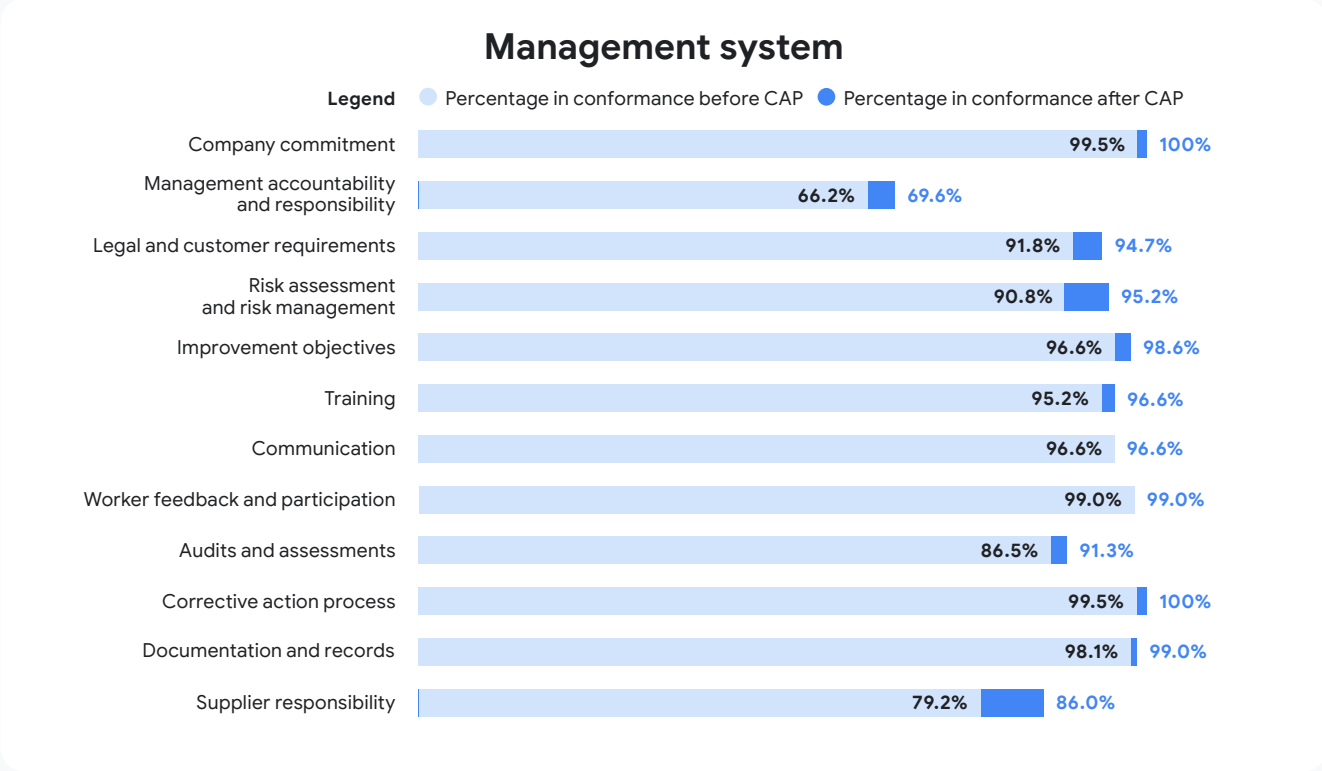
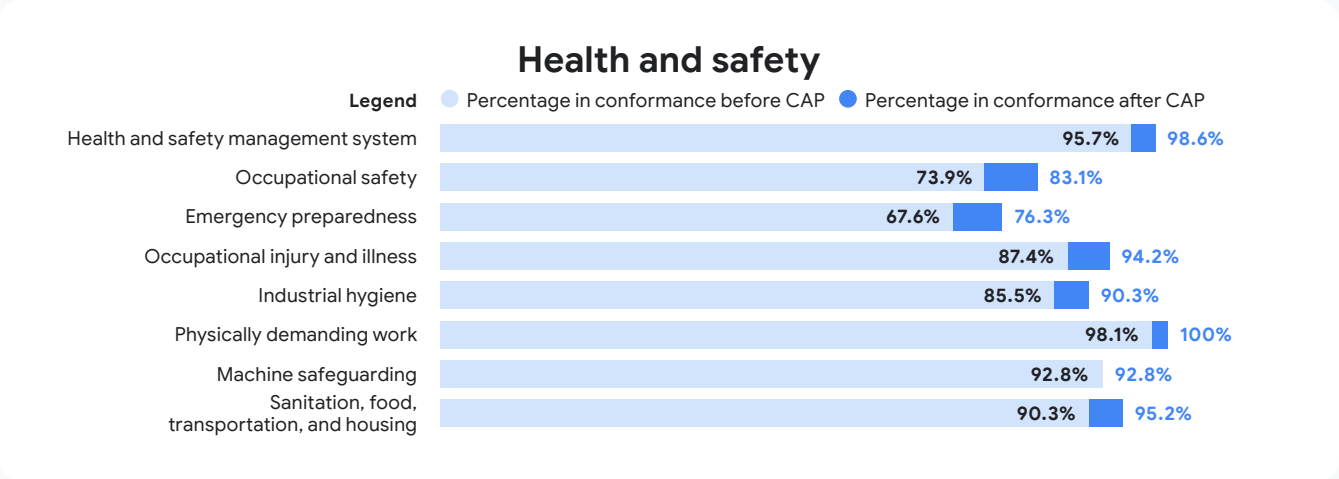
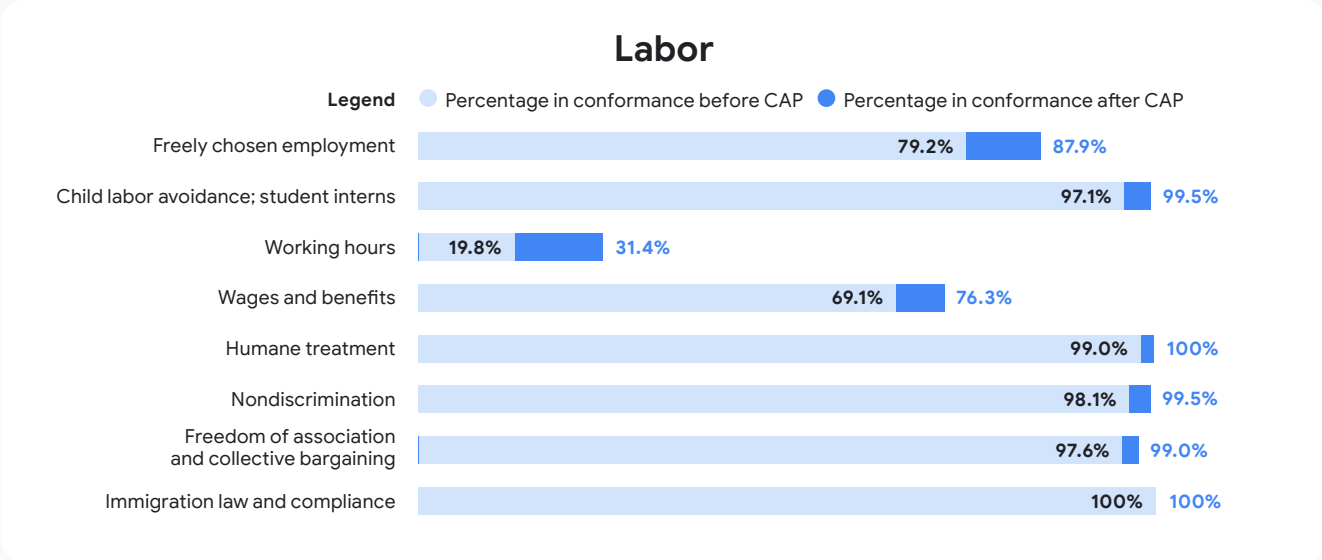
FIGURE 6 Top categories of nonconformances



*Numbers indicate percentage of total nonconformance findings

2023 audit conformance data

In the table below, the lighter bars show the percentage of unique audited supplier facilities that had no nonconformance findings for the listed criteria after their audit. The darker bars show the percentage that had no nonconformance findings after the CAP process was completed.



Strengthening communities

Overview

Sourcing minerals responsibly

Increasing community resilience

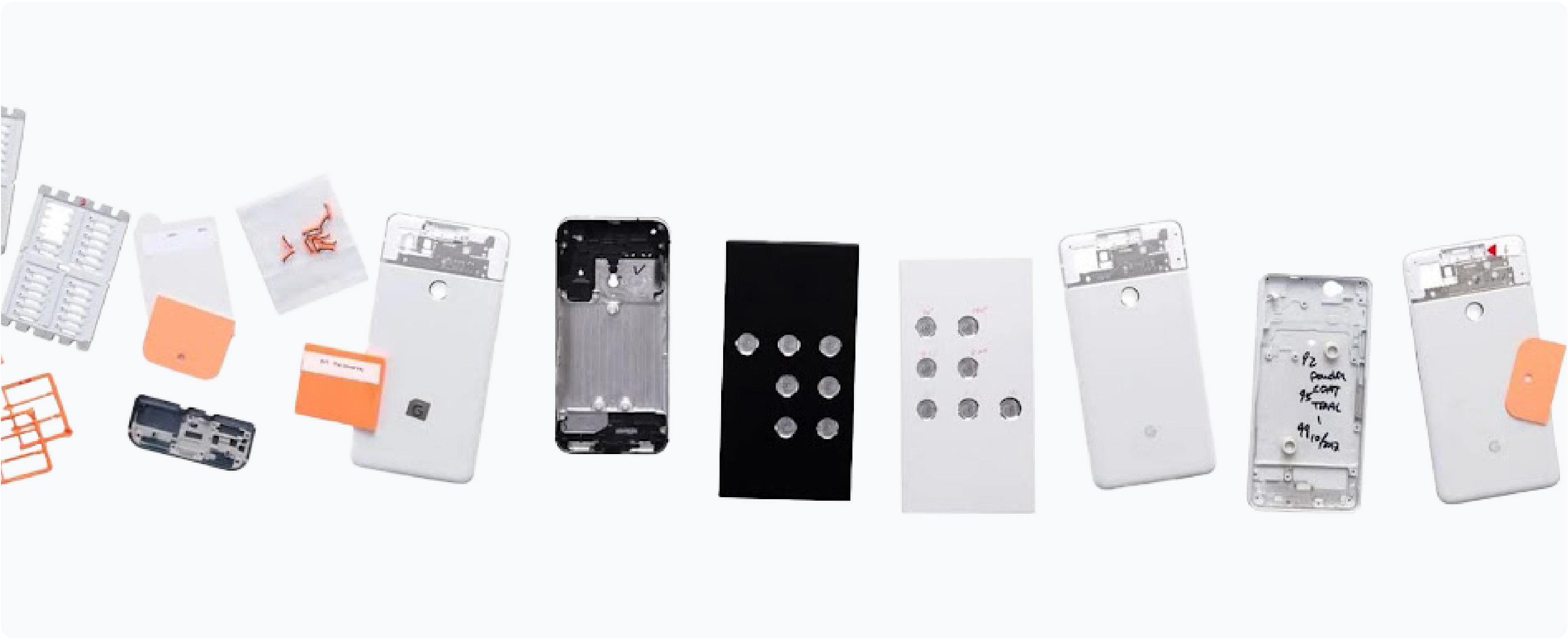


Overview

We aspire to create stronger, more resilient communities everywhere we do business. Our Responsible Minerals program focuses on two key strategies:

- Promoting transparency and due diligence: We strive to ensure responsible sourcing practices throughout our supply chain.
- Empowering mining-impacted communities: We invest in infrastructure, essential services, and alternative livelihoods to support community development and resilience.

Through our engagement efforts and partnerships, we strive to make a positive impact on every supplier’s workplace, community, and ecosystem. We strive to leave communities better than we found them.



Sourcing minerals responsibly

We’re committed to responsible sourcing of critical minerals—particularly tin, tantalum, tungsten, and gold (collectively known as 3TG), as well as cobalt and mica—used in our devices and data center equipment.

Historically, the primary concern with these minerals has been ensuring their extraction doesn’t finance armed conflict in the Democratic Republic of the Congo (DRC) and other high-risk areas.

Launched in 2012, our Responsible Minerals program employs a two-pronged approach. The first prong focuses on transparency and due diligence to establish conflict-free mineral sources both within and outside of the DRC and adjoining countries. Our efforts concentrate on smelters, refiners, and mineral processors (known collectively as “smelters”), recognizing their crucial role in the mineral value chain and the significant impact of due diligence at this stage.

The second prong aims to strengthen communities impacted by conflicts potentially funded by the minerals trade in the DRC and elsewhere. We go beyond our immediate supply chain to address the root causes and impacts and engage in industry action, collaborating to leverage collective resources toward transformative action.

Transparency and due diligence

Our Responsible Minerals program is grounded in the [Alphabet Conflict Minerals Policy](#), which requires suppliers to source 3TG from certified conflict-free smelters. These smelters undergo rigorous audits conducted by reputable third party assessment programs, such as the Responsible Mineral Initiative’s (RMI) Responsible Mineral Assurance Process. Our program is also aligned with our Supplier Code of Conduct, which prohibits child labor.

We require annual disclosure from our suppliers regarding their supply chain. This includes information on the mine of origin, and a list of smelters used for 3TG minerals. Battery suppliers must also provide information on cobalt and mica.

We assess each smelter to ensure it meets our responsible sourcing standards. This means the smelter must be conformant, active,⁴ or verified by a third party as exclusively sourcing raw materials from countries not covered by the 2010 Dodd-Frank Act (collectively referred to as “compliant” smelters in this report). If a smelter is not compliant, we work with our suppliers to engage the smelter to change their practices or undergo a third-party assessment. In some cases, we require suppliers to disengage from noncompliant smelters.

As noted in Alphabet’s Conflict Minerals Report for 2023, we identified 302 smelters in our supply chain, of which 99% were compliant. While we achieved 100% compliant smelters in the previous five reporting years, three smelters’ status changed to noncompliant in late 2023. We’re actively supporting our suppliers to help these smelters regain compliance or be removed from our supply chain.

Recognizing that responsible mineral sourcing is a cross-industry challenge, we actively collaborate with others. We’re one of more than 400 members of the RMI, which provides independent third-party audits to ensure that smelters meet current conflict-free standards. Our contributions include supporting the RMI upstream due diligence fund and smelter assessments in the DRC and elsewhere. As part of the RMI Smelter Engagement Team Working Group, we engaged directly with smelters located in Asia. Separately, we’re working with peer companies and partners to pursue better tracing and eliminate child labor in cobalt mining. Finally, we have begun to assess our cobalt smelters against third-party due diligence findings, and ask all of our battery suppliers to submit EMRT reports. We received EMRTs from 100% of our battery suppliers in 2023.



Increasing community resilience

Up to 2 million people in the DRC are dependent on artisanal mining.⁵ We believe that responsible mineral procurement can contribute to economic growth and development in the DRC and adjoining countries, and a withdrawal from trade with the region should be avoided.

Widespread poverty is a root cause of conflict, as well as of human rights abuses, unsafe working conditions, and environmental degradation of mining areas in the DRC and elsewhere. We can't address this on our own, so we collaborate with governments, NGOs, and industry partners to provide renewable energy, create alternative livelihoods, and invest in a sustainable future.

Since 2018, we've supported the Congo Power Initiative, which has delivered 14 renewable energy projects in the DRC and provided access to renewable energy to over 21,000 people in the region. Much of the DRC lacks electricity, especially rural areas where artisanal mining takes place. This lack of power hinders healthcare, safety, and economic opportunities. The Congo Power Initiative installs solar energy systems in communities or organizations that provide beneficial services, like medical facilities or conservation areas. This generates value in multiple ways. For example, solar power ensures vital medical equipment functions properly and reliably, likely saving lives. Additionally, access to electricity at night improves safety and fosters new business opportunities, strengthening the overall well-being and resilience of these communities.

In 2023, we completed the transfer of leadership for the Congo Power Initiative to the Public-Private Alliance for Responsible Minerals Trade (PPA)—a multi-sector initiative among leaders in civil society, industry, and government that supports responsible mineral sourcing in the DRC and the surrounding Great Lakes Region of Central Africa. This year, we committed to extending our funding of and partnership with the PPA for five more years. Under this new leadership structure, we designed and implemented a partnership with the Congo Power Initiative, the PPA, and other donors to deploy two solar energy installations for the Good Shepherd International Foundation (also known as Bon Pasteur), which works directly with mining communities to address human rights abuses against women, girls, and children. Work on these installations began in 2023, with the last step of installation planned for completion in 2024. In collaboration with the PPA, we intend to broaden the scope of our efforts to focus on global transition minerals beyond 3TG within and outside of the Great Lakes Region of Africa in order to respond to global minerals demand.

Further, we continue to support the work of the Panzi Foundation through our participation in the PPA. The Panzi Foundation aims to improve the lives of women and children working in artisanal mines in the DRC. The Foundation provides a range of vital community support services, including school renovations, income-generating and money-saving activities, psychosocial and educational support, and group programs to foster collaboration and mutual understanding. By

2022, the Foundation's work had achieved significant positive outcomes:

- **Education:** 400 children, parents, and other vulnerable groups were reintegrated into schools.
- **Safer Livelihoods:** 100 women transitioned from vulnerable or hazardous mine work to alternative livelihoods.
- **Economic Empowerment:** 85% of participating households reported increased income due to the project's initiatives.
- **Community Development:** The project supported the renovation of 12 classrooms and the establishment of kids' clubs and parent committees.
- **Reduced Child Labor:** At least 84% of beneficiaries completely abandoned their activities in mining areas.

Finally, we're members of the Fair Cobalt Alliance (FCA), a multi-stakeholder initiative that seeks to strengthen and professionalize DRC's artisanal cobalt mining sector and contribute to local economic development. One key pillar of FCA's strategy is to invest in economic diversification so that communities are not dependent solely on mining. In 2023, we began scoping a solar installation that will provide renewable energy to a FCA partner organization. This is expected to be deployed in 2024. Other key FCA achievements in 2023 include enhancing safety measures for over 200 miners through PPE and roofing of underground tunnels, establishing a comprehensive remediation system for child labor with other local partners, improving income through savings groups (21 groups for 456 people collectively saving more than 40,000 USD in 2023), and piloting Cobalt Credits in partnership with Fairphone.



Progress and commitments

Progress against targets

Progress against targets

Creating a more inclusive, resilient, transparent, and connected supply chain is a long-term process.

We’ve set a number of goals for our own operations, and those of our suppliers, to help accelerate our progress.

Here’s a look at some of the commitments and progress we made last year. Each of these targets represents our ongoing, year-to-year commitment to make significant progress toward a specific priority. Additionally, we have included new goals for 2024.




PUTTING PEOPLE FIRST			
Target	2023 Progress		Status
Conduct assessments of our higher-risk supplier sites to identify and improve conformance with our Supplier Code of Conduct. Build capabilities with our suppliers by providing training and tools to address higher-risk topics and common nonconformance issues.	In 2023, we completed and accepted 207 total Supplier Code of Conduct assessments and continually worked with our suppliers to provide fair, healthy, and safe conditions for their workers.		<div></div>
Empower the voices of the people in our supply chain using various tools to gather anonymous feedback, and identify areas for improvement; promote worker capacity-building by enabling digital and direct worker training for personal and career development.	In collaboration with the International Organization on Migration (IOM), we launched a three-phase project to collect direct feedback from workers at two of our strategic supplier sites in Vietnam. The first phase was completed in 2023, with the second and third scheduled to be completed in 2024. This project will help us test approaches for more successful supplier engagement centered on workers’ own perspectives.		<div></div>
Convene a Supplier Sustainability Summit covering topics such as Google’s Supplier Code of Conduct, anti-modern slavery, and human rights.	In December 2023, 731 participants attended our Supplier Sustainability Summit. It included two dedicated sessions on supplier responsibility, which were designed to equip our higher-risk suppliers with the knowledge and competencies to mitigate potential risks in their own operations and supply chains.		<div></div>
Scale our Process Chemicals FMD Data Collection and Assessment to include additional strategic suppliers. Improve safe use of chemicals by verifying conformance with MRSL requirements, using safer alternatives, and controlling chemical hazards.	In 2023, we continued to operate our FMD program and included 19 additional supplier sites, bringing the total number of participating sites to 63 since the program’s inception. This expansion broadens the program's reach and impact, extending training to more suppliers by encouraging Tier 1 suppliers to disseminate their knowledge to Tier 2 suppliers. We will continue expanding and scaling this program in the year ahead.		<div></div>

Achieved In Progress Missed

2024 Goals:

- Conduct assessments of our higher-risk supplier sites to identify and improve conformance with our Supplier Code of Conduct. Build capabilities with our suppliers by providing training and tools to address higher-risk topics and common nonconformance issues.
- Empower the voices of the people in our supply chain using various tools to gather anonymous feedback, and identify areas for improvement; promote worker capacity building by enabling digital and direct worker training for personal and career development.
- Convene a Supplier Sustainability Summit covering topics such as Google’s Supplier Code of Conduct, anti-modern slavery, and human rights.
- Expand supply chain mapping efforts and review current stakeholder engagements throughout our value chain to inform program improvements.

Progress against targets (continued)

STRENGTHENING COMMUNITIES		
Target	2022 Progress	Status
Strive to ensure that our suppliers source from smelters that are 100% compliant with the Responsible Minerals Assurance Process assessment protocols for tantalum, tin, tungsten, and gold.	<p>A smelter meets our responsible sourcing standards if it is conformant, active,⁶ or verified by a third party as exclusively sourcing raw materials from countries not covered by the 2010 Dodd-Frank Act (referred to as “compliant” smelters in this report).</p> <p>While we achieved 100% compliant smelters in the previous five reporting years, three smelters' status changed to noncompliant in late 2023. We are actively supporting our suppliers to help these smelters regain compliance or be removed from our supply chain.</p>	
Prioritize community partnerships that promote alternative livelihoods, advance gender equity, and reinforce responsible supply chains for conflict minerals.	In 2023, we completed two Congo Power projects initiated in 2022, bringing us to a total of 14 completed since 2018. We also transitioned responsibility for oversight of the Congo Power program to the Public-Private Alliance for Responsible Minerals Trade (PPA), which will be in charge of managing the program going forward.	
Continue collaboration with the Responsible Minerals Initiative to increase transparency and accountability between upstream and downstream partners that depend on responsible minerals supply chains.	We contributed to the RMI upstream due diligence fund to enable expanded coverage of upstream actors and participated in direct outreach to smelters through RMI Smelter Engagement teams.	

 Achieved  In Progress  Missed

2024 Goals:

In addition to continuing the efforts listed above, we aim to:

- Expand our Responsible Minerals program and partnerships to focus on minerals beyond 3TG, cobalt, and mica.
- Continue to collaborate with external stakeholders and cross-industry groups that reinforce responsible sourcing of materials and improved human rights outcomes.

Endnotes

- 1 These figures do not include findings from third-party audits conducted through the RBA VAP. However, Google also monitors the results of these third-party audits, and trends in findings are similar to those shown here for Google-managed audits.
- 2 For the purposes of this report, “compliant” smelters or refiners are those that are conformant, active, or verified by a third party to source from countries other than those covered in the 2010 Dodd-Frank Act. See Alphabet’s Conflict Minerals Policy and Report for more information.
- 3 See note 1 above.
- 4 Smelters and refiners are defined as “conformant” or “active” by the Responsible Minerals Initiative. Conformant smelters or refiners are those that have been audited and meet the criteria for not directly or indirectly supporting the conflict; active smelters or refiners are those in the process of being audited.
- 5 [Delve Database](#), accessed May 2024.
- 6 See note 4 above.

Google

Supplier Responsibility Report

2024

Want to learn more about our latest efforts?

To stay up to date on our news and progress,
see our [Sustainability blog](#).

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