

# **Supply Chain Engagement: from Risk to Impact**

**Fairphone 4 Suppliers,  
Smelters and Refiners**

May 2023

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# 1 Introduction

## Transparency: the first step in fairer supply chains

Fairphone was founded to create a positive impact on the value chain of consumer electronics. We began making phones because we knew there were more ethical and environmentally sound ways to manufacture them and we set out to prove it: from the inside. A crucial step to setting an example to the rest of industry was to publish what we discovered, share the choices we made, and raise awareness of alternatives.

Smartphones are intricate products made up of thousands of different components. Each of these parts comes from different suppliers and contain a wide variety of materials. As a result, our supply chain includes mines, smelters, refiners and multiple tiers of manufacturers that span the entire globe. Many in the industry would call this an impossible task, but step by step, we are mapping our supply chain to understand exactly what goes into our phone and where it comes from.

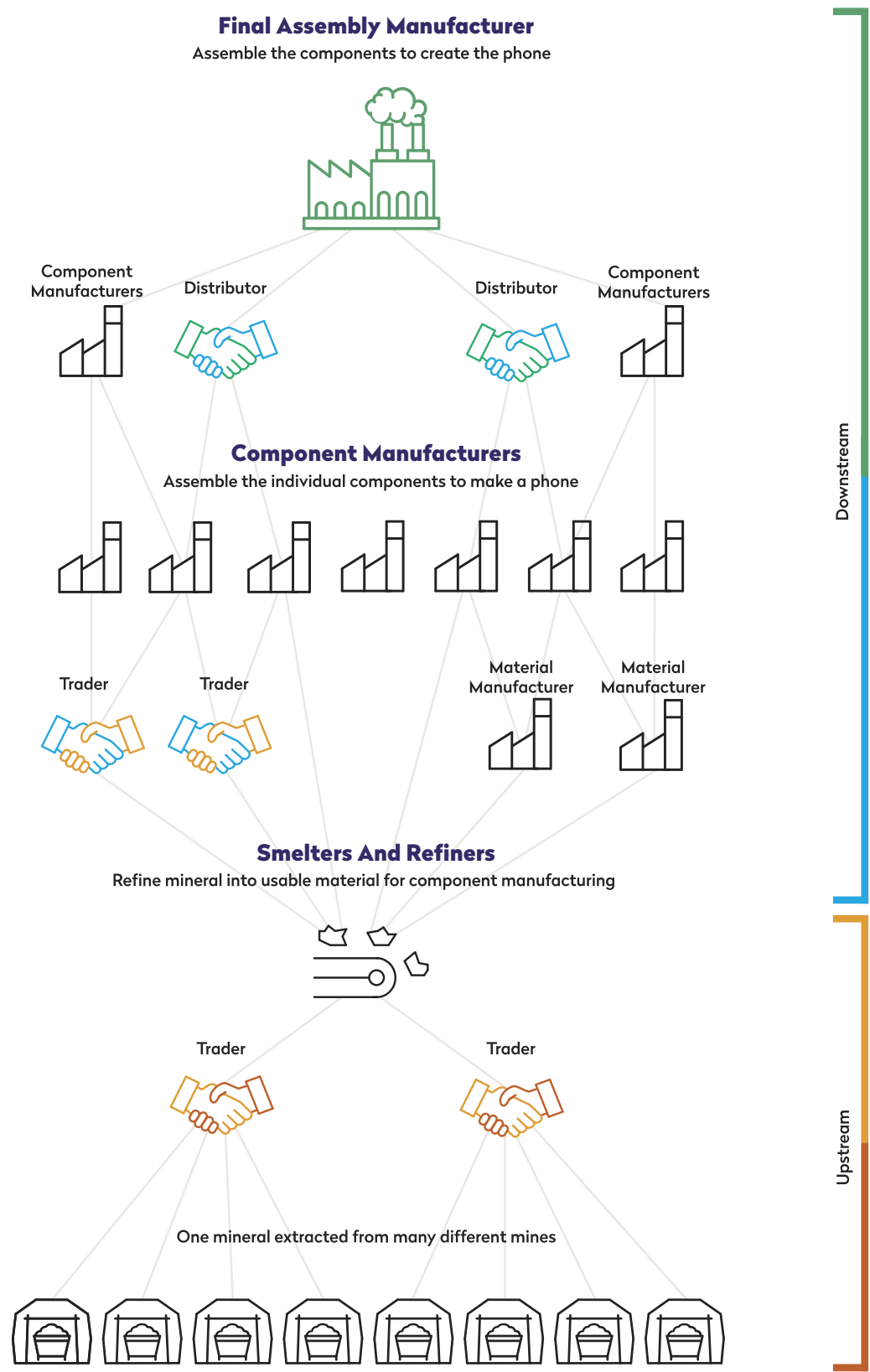
By learning more about the hundreds of actors and locations involved in our smartphone supply chain, we can take an informed approach to making a difference. For Fairphone, that goes beyond audits, assessments and compliance; our mission drives us to go beyond the baseline of due diligence legislation and industry best practice. This means sourcing from more responsible mines, investing in their improvement, actively connecting them to our supply chain, and inviting others in the industry to do the same. It also means finding and engaging with suppliers that share our values and initiating improvement programs at their factories—and beyond.

This document offers an introduction to our supply chain approach, and a summary of what we have learned about the Fairphone 4 supply chain to date. It is an update of our [Fairphone 4 supply chain engagement report published in 2022](#), to report on progress made and align with annual reporting cycles.

The report examines our:

- **Overall approach to due diligence**—the process we go through to ensure that our due diligence practices effectively lead to positive impact and improved outcomes for people and planet, in line with internationally recognised good practice standards such as the UN Guiding Principles on Business and Human Rights.
- **Downstream components supply chain**—the chips, circuits and pieces — like the phone's battery or camera — which are assembled by indirect suppliers and used in the final assembly of the phone. We'll highlight efforts to improve working conditions and worker satisfaction.
- **Upstream material supply chain**—the metals, plastics, and raw materials that go into those components. We'll explain our focus on specific material supply chains (our "focus materials"), discuss the tools we use to conduct due diligence on those supply chains, and report on key findings, particularly in our tin, tantalum, tungsten, gold and cobalt supply chains. In addition, we'll outline what we do to push the industry beyond mere compliance, toward creating positive impacts through a more sustainable sourcing and material footprint for a wider variety of materials.

Simplified representation of a smartphone supply chain



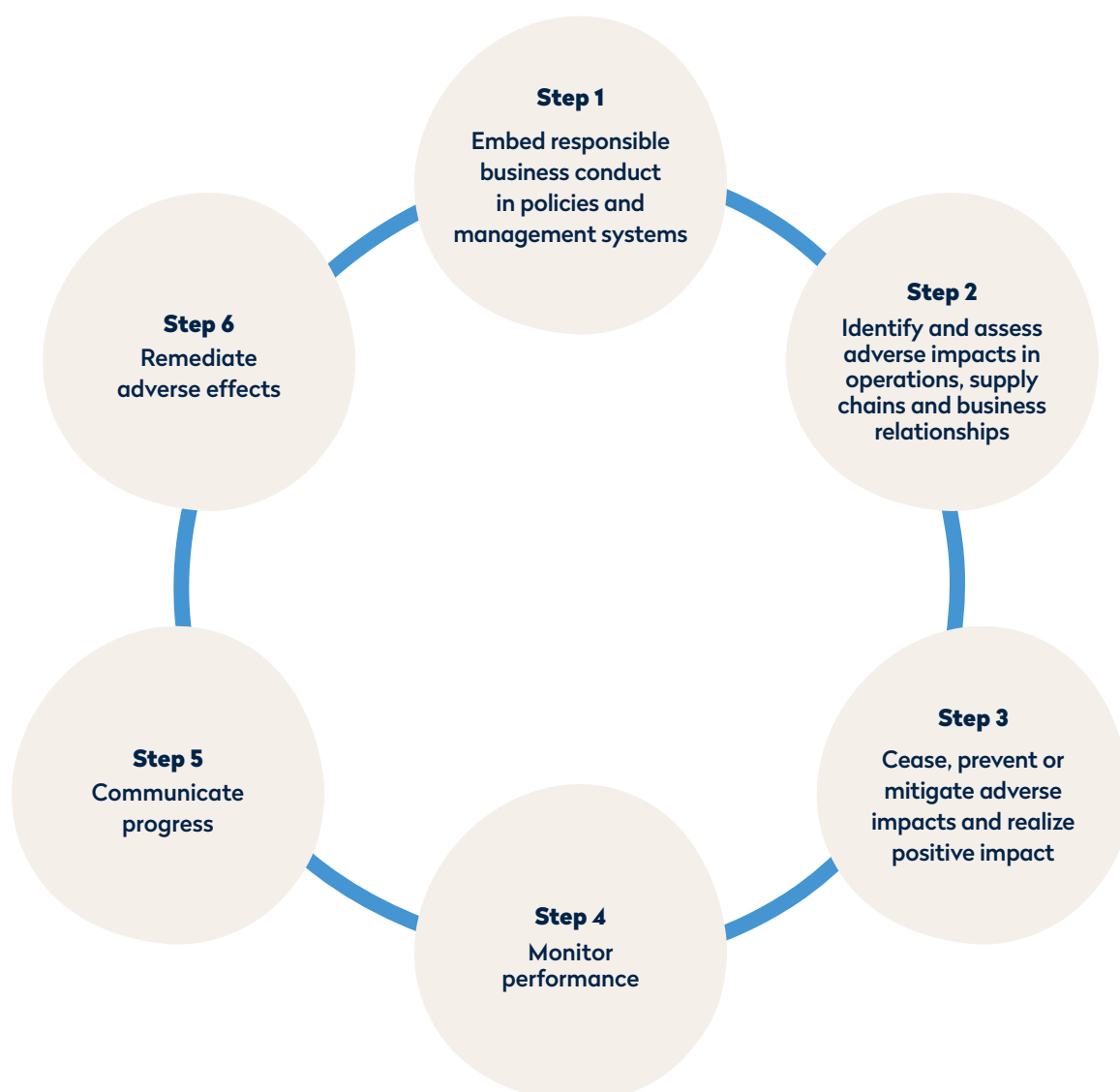
This graph is a simplified reflection of the Fairphone supply chain. In electronics, a variety of set-ups is possible and this graph should not be taken as a one-size-fits all for other products and brands.

# 2 Due Diligence Approach

## Due Diligence Approach

Fairphone's due diligence approach is based on international guidelines and standards, including the United Nations Guiding Principles on Business and Human Rights (UNGP), the OECD's Guidelines on Multinational Enterprises (OECD Guidelines) and also takes guidance from the OECD's more detailed Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (OECD Guidance).

These documents outline a six-step process for a company's due diligence.



## Step 1. Embed responsible business conduct in policies and management systems

Our code of conduct, [the Fairphone Ways of Working Together](#), contains our policies and expectations for working with all of our partners and suppliers. It covers topics like human rights, health and safety, the environment, ethics and responsible sourcing. It is inspired by international standards, including ILO fundamental Conventions, ILO Fundamental Principles and Rights at Work, United Nations Guiding Principles, the OECD Guidelines, ETI Base Code and RBA Code of Conduct, as well as our own first-hand experience.

We distribute our Ways of Working Together to our suppliers at the outset of our engagement to raise awareness, generate impact, and secure improvement commitments from suppliers. We further require suppliers to adhere to our Ways of Working Together through contractual obligations, which also include due diligence requirements on sub-suppliers. We also build engagement with suppliers by embedding improvement plans such as impact projects and capacity-building programs into our contractual arrangements with strategic suppliers. We provide a financial incentive to our suppliers by offering a higher product price if they meet the targets of impact programs and increase their social and environmental maturity.

Fairphone's [Fair Sourcing Policy](#) establishes our approach to sourcing components and materials, ensuring that we tackle issues in the supply chain and drive opportunities for impact, rather than merely avoiding risks. It is both an internal guideline and an external tool to engage with industry partners. It aims to use market demand as a catalyst for positive change, creating continuous improvement trajectories that make a positive impact for people and the planet. The Fair Sourcing Policy establishes four main principles:

1. Use buying power as a catalyst for investment.
2. Address risks as opportunities.
3. Achieve continuous improvements and report on progress.
4. Work towards systemic change with region-wide impact.

In addition, we follow our **internal policy and standard operating procedures** on responsible sourcing and material due diligence. We engage with internal teams to manage, implement and track progress of their internal policies.

We are aware that our sourcing behavior may affect the working conditions at our suppliers. Responsible sourcing practices help reduce the risks of excessive

working hours, low wages, forced labor or other poor labor practices at our direct suppliers, and encourage the supplier to improve their social and environmental performance. Fairphone sourcing practices include stable planning and forecasting, reasonable pre-financing and payment terms, product prices that enable a living wage for the workers of our suppliers (ring-fencing labor costs) and financial incentives for our suppliers to strengthen their social and environmental impact. These are included in contractual agreements with direct suppliers. We communicate, reinforce and generate expectations internally and externally with regard to our commitment to responsible resourcing of conflict minerals and our focus materials.

Our **Impact Innovation Director** is accountable for due diligence and the implementation of social and environmental impact programs, and sits on the overall management team at Fairphone. Fairphone has set seven company KPIs, of which five are impact related. The Board of Directors submits a monthly update to the Supervisory Board and is held responsible for achieving these seven KPIs. The KPIs are translated to concrete annual goals and actions for the internal teams, which in turn are part of employee performance reviews. The seven KPIs are described in detail in our annual [Impact Report](#). The experiences of supply chain workers or other stakeholders (such as civil society, unions or worker representatives and customers) help shape decision-making processes. They influence strategy setting and program design on all levels of the company; they are raised directly through staff from different teams in Board meetings and strategy discussions, or through their representative Board members.

Material due diligence responsibilities are divided between several teams at Fairphone, namely Impact Innovation, Product and Legal. The responsibilities are divided to ensure developments are monitored from all perspectives, e.g. product specifications, regulatory requirements and thought leadership. Moreover, the teams jointly work together to facilitate the data collection and analysis for reports such as this one.

All new employees of Fairphone receive an **Impact training**, outlining Fairphone's mission, vision, impact goals, policies and KPIs as part of their onboarding. Updates on impact projects and partnerships are provided to all employees in weekly company meetings and dedicated deep-dive sessions. Monthly and quarterly updates about the progress on the seven KPIs are shared with all employees.



## Step 2. Identify and assess adverse impacts in operations, supply chains and business relationships

Fairphone continuously conducts risk identification and assessment within its supply chain. We collect a variety of information from our suppliers, both at the supplier selection stage as well as continuously during production. This includes information from desktop research, supplier certifications, compliance audits, self-assessment questionnaires, worker-driven assessments by third parties, onsite visits by Fairphone staff and follow-up on social and environmental improvement programs by Fairphone staff or third parties. We engage with other stakeholders — such as supply chain workers or their representatives and civil society — to include their experiences and insights also. Fairphone actively seeks opportunities for improvement, aligning on improvement programs with direct and indirect (tier 2 or 3) suppliers, supporting them through investments and capacity building to help them realize a better social and environmental performance.

Fairphone requests a full material declaration from our final assembly manufacturer, to understand the material composition of our smartphone. We then engage with key suppliers and support them in investigating their supply chains involving our focus materials. This allows us to gain a view of the material mix (recycled or mined origins), the refiners in the supply chain and, possibly, the countries of origin of mined material. Due to the complexity of our supply chain, we do this one step at a time, focusing on key suppliers handling a large amount of our focus materials.

To identify risks specifically related to tin, tantalum, tungsten, gold (3TG) and cobalt, we ask suppliers to identify all of their smelters and refiners and to cascade the Conflict Mineral Reporting Template and a Emerging Minerals Reporting Template up their supply chain for completion. We evaluate the accuracy of the information generated by these reports, and assess the compliance of the reported refiners and smelters with the RMI's Responsible Minerals Assurance Process across a range of criteria. Fairphone also uses the RMI's Minerals Grievance Platform and our own Grievance channels as a predictive tool to gather information and key insights related to risk analysis and identification. When we identify information or practices that we consider concerning, or which are reported to us via the feedback mechanism at our website, we investigate further. We aim to use the new Pilot Reporting Template developed by the RMI to explore the supply chains of other focus materials (beyond 3TG and cobalt) in more depth, in particular for the materials used in our battery.

## Step 3. Cease, prevent or mitigate adverse impacts and realize positive impact

Fairphone's approach not only aims to cease, prevent and mitigate adverse impacts, but also to improve the social and environmental maturity of our supply chain partners through engagement and support. This approach addresses risks identified through our supplier assessments and also aims to realize positive impacts such as increased worker satisfaction. The improvement plans aren't just based on compliance audits and similar assessments; they are also based on the needs of workers themselves. Fairphone invests in capacity building for direct and indirect suppliers, their workers and worker representatives. Further information on our approach and progress to support suppliers to realize positive impact is provided in chapter 3 Downstream component supply chain.

Our responsible sourcing policies further aim to both avoid affecting the working conditions at our supplier in a negative way while incentivizing the supplier to improve its social and environmental maturity. An important additional measure we take is enabling the payment of living wages and incomes in our supply chain. This increases the well-being of supply chain workers, their families, and communities, while helping to prevent child- and forced labor.

When it comes to material sourcing, Fairphone uses data reported by suppliers in their Conflict Materials and Cobalt Reports and updates of the list of compliant smelters and refiners maintained by RMAP in order to monitor and identify potential risks. Many suppliers report on a company level, which means they may include refiners that supply materials that are not actually used in Fairphone products. A member of our Impact Innovation team will assess the information and analyze any material declarations provided by our suppliers to confirm if high risk refiners are providing materials for Fairphone's products. If valid red flags are identified, we reach out for further clarification. Our first strategy is direct engagement to respond to identify risks.

If a cause for concern is determined, the red flag is reported to the management team and/or brought to the attention of the appropriate industry association or grievance platform. Where Fairphone identifies non-conformant smelters and refiners, we engage directly via our suppliers or via joint industry processes such as the RMI's smelter and refiner engagement, to establish their willingness to come into compliance. Where there is willingness, we engage with supply chain and industry partners to develop improvement trajectories and create impact. If there is no willingness or progress over time, Fairphone's policy aims to eliminate that supplier from our supply chain.

Fairphone recognizes that to cease, prevent or mitigate adverse impacts and realize positive impact, we are required to go beyond just checking the compliance status of smelters and refiners. This is why, when we identify significant risks or impact opportunities relating to any of our focus materials, we proactively engage and invest. We believe it's important to do this even if we haven't yet or can't trace the supply chain of that material in full; electronics supply chains are hugely complex.

It takes significant time and effort to track and trace materials, and sometimes we simply can't move forward if there is unwillingness to disclose further up the supply chain. So taking responsibility and investing in improvements in parallel to that discovery process can enable us to immediately make positive impacts. In chapter 4 Upstream materials supply chain, we provide a summary of the specific measures we take to create impact in our material chains, as this is different for each material.

For even more details, please refer to our [Impact Report](#).

#### **Step 4. Monitor performance**

Fairphone keeps track of the progress made on improvement plans agreed with suppliers. This includes regular check-ins throughout the year with each supplier. Their progress, as well as the progress on company KPIs, is reported on a monthly basis to the Management Board and Supervisory Board.

The Conflict Mineral and Cobalt Reports from our component suppliers include lists of the smelters they work with. As a small player, we don't always have the resources to conduct additional audits on our own. We therefore rely on industry-wide programs like the Responsible Minerals Assurance Process (RMAP) or other recognized third-party audits. Fairphone has set a target to achieve a 100% conformance rate for the smelters and refiners identified in Fairphone's conflict minerals supply chains by the end of 2023.

In addition to this, we monitor and track the sourcing and integration of our 14 focus materials, regularly reporting on the percentage of responsibly mined or recycled content in our phones and products and showing the degree to which we've been able to link fairer sources to our supply chains.

When we invest in improvement projects in mining areas, we insist on establishing monitoring and evaluation frameworks that include voices from the mine workers and their communities, in order to understand if and how they themselves perceive improvements in their lives.

#### **Step 5. Communicate progress**

Fairphone reports on our supply chain due diligence and related improvement projects through our website, blog, annual Impact Report and this Supply Chain Engagement Report.

You can find further information on all our previous due diligence reports [here](#) and impact report [here](#). Our annual Impact Report and the seven KPIs we measure ourselves against are also audited by a third party on a yearly basis.

#### **Step 6. Remediate adverse effects**

The international standards highlight that companies should address and remediate the impacts they caused or contributed to by engaging or cooperating in remediation processes when appropriate. This also includes the establishment of proper grievance channels for potentially affected stakeholders such as workers or communities. Beyond that, remediation processes should take the needs and rights of the affected stakeholder into account and prevent that the affected stakeholder ends up in worsened situations.

General supply chain grievances can be sent to Fairphone, and we provide a specific email address where anyone can lodge a complaint or grievance relating to the effectiveness of Fairphone's responsible sourcing practices. Grievances or complaints relating to specific Annex II risks of the OECD Guidance can be submitted via the RMI Minerals Grievance Platform, which is an online cross-industry grievance platform designed to screen and address grievances linked to smelters and refiners in the minerals supply chains.

In addition Fairphone directly engages with potentially affected stakeholders — such as workers — and ensures that they can voice complaints and grievances. We have established worker voice and worker representation programs at key suppliers, through which factory workers can regularly and safely voice concerns or requests for improvements. Fairphone then supports and invests in these improvements in collaboration with the relevant supplier. Fairphone also supports engagement with and inclusion of worker and community voices upstream within the projects we support on the ground, such as the Multi-Stakeholder Roundtables established in the lithium mining regions in Chile under the Responsible Lithium Partnership (for more information, please see our [Impact Report](#)). We aim at further expanding and strengthening this approach in our upstream supply chains in the future.

# 3 Downstream component supply chain

## Our approach to identifying and working with suppliers

At Fairphone, we believe that each supplier and workplace requires a tailored approach to create a positive impact that is sustainable. However, we can't do this with all suppliers at once. We're taking a step-by-step approach to mapping and improving our supply chain which aims to maximize our impact and bring us closer to our goal of 100% supply chain visibility and accountability.

### Mapping our suppliers

Fairphone designs and sells the Fairphone. But, as is common in the industry, we contract out the phone's assembly to a specialist company. A phone has many components, and a single component will often have multiple sub-parts from multiple suppliers. Our key supplier is the final assembly manufacturer, who assembles the phone. This is considered tier 1 of the supply chain. The component manufacturers are tier 2. The sub-component suppliers that they work with are tier 3, and companies who work with these component suppliers are tier 4, etc. The supply chains may include 10 tiers (or more). Over the years, we've been working hard to identify all the different actors involved in making our phones and we update this information regularly.

### Collaboration and setting expectations

Supply chains are long and complex, and we believe that getting suppliers involved in our mission is the only way to increase understanding of the issues and to influence real change. Our code of conduct, [the Fairphone Ways of Working Together](#), contains our policies and expectations for working with all of our partners and suppliers, covering topics like human rights, health and safety, the environment, ethics and responsible sourcing. Many of these are based on international standards from the United Nations, the OECD, and other regulatory bodies.

We go beyond that code by conducting research, requesting more detailed information via supplier self-assessment questionnaires, conducting on-site visits and scheduling independent compliance audits, worker surveys and other appraisals to ensure our direct suppliers are complying with our ethical and sustainability requirements. We also reach out beyond the final assembly manufacturer, conducting

assessments and creating risk and opportunity ratings of critical tier 2 suppliers.

Where red flags are identified, our first step is not necessarily to terminate the relationship: we work with the supplier to find mitigation strategies. And we don't stop at risk mitigation. Our commitment is to improve. As we engage with our suppliers, we aim to always identify opportunities for creating positive change. We've created financial incentive programmes to reward improvements in worker satisfaction, helped identify worker priorities for workplace enhancements, organized democratic elections for worker representatives and put better mechanisms in place for worker - management feedback and dialogue and pay product prices that enable living wages for factory workers.

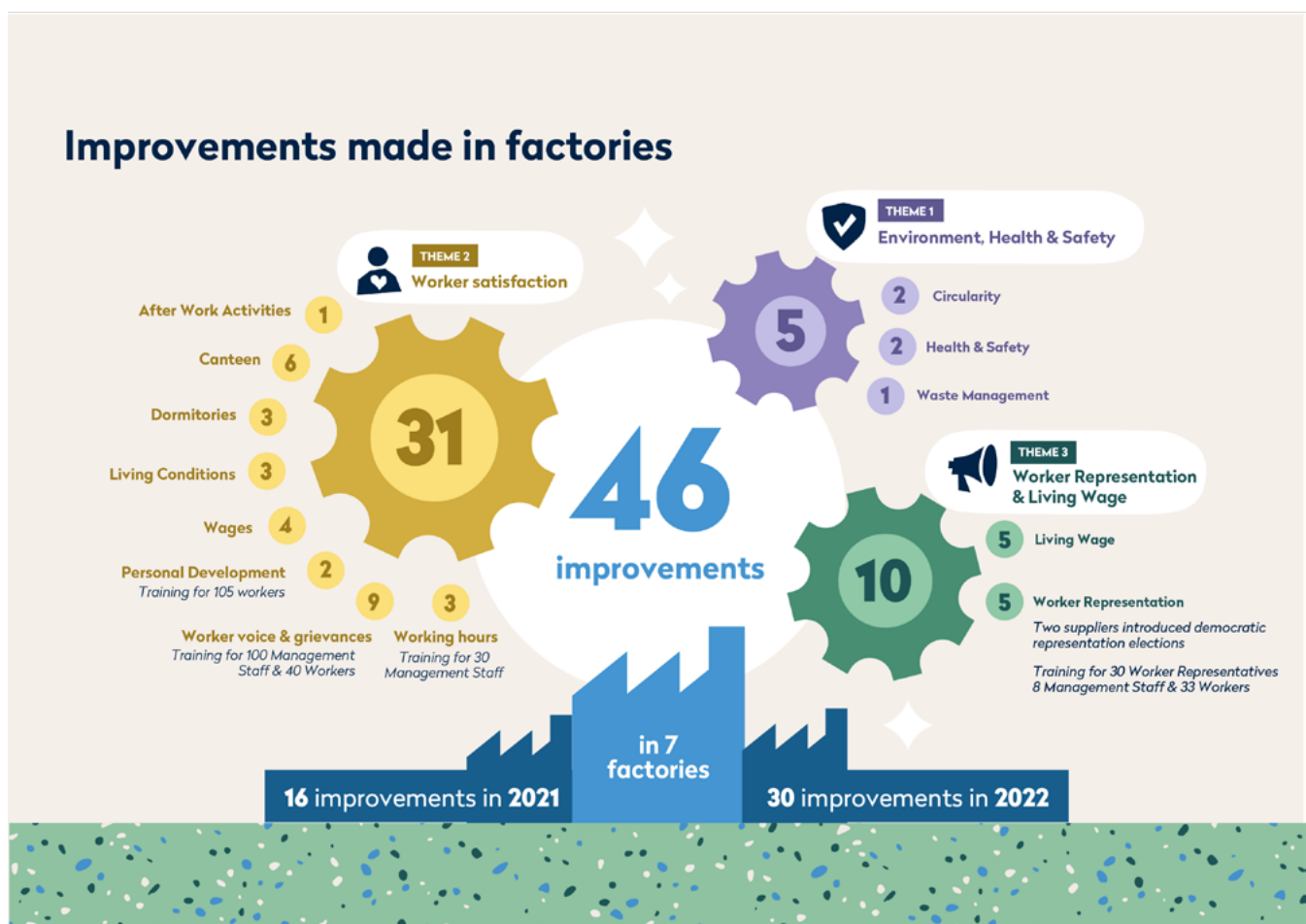
Our improvement approach is centered around the needs and priorities of the workers. We identify key areas affecting employee satisfaction and retention using satisfaction surveys and by creating programs to ensure worker's voices are heard. Based on the needs identified by the workers, Fairphone works with suppliers to jointly develop an improvement program and co-invests in initiatives to improve employee satisfaction and representation.

Fairphone identifies living wages as one of the key topics the electronics industry urgently needs to address. In 2019, Fairphone became the first electronics company to support factory workers with a living wage bonus — a premium we awarded to ensure the wages workers received would meet their needs. In 2022, Fairphone supported a tier 2 supplier with a living wage bonus — another industry first. Since 2019, USD 745,000 has been distributed as a bonus to our suppliers' workers to help them move closer to a living wage.

Fairphone regularly engages with different stakeholders — including NGOs — and participates in networks such as the Responsible Business Alliance, Towards Zero Exposure commitment program, UN Global Compact, IDH's Roadmap on Living Wages and more. We share our experience, and learn from and capture different perspectives, which feed into our supply chain due diligence and impact programs.

### Current progress

Fairphone has engaged with suppliers to develop impact programs with explicit focus on worker voice and living wages. The visual below highlights the progress made with our suppliers. You can read more about these initiatives in Fairphone's latest [Impact Report](#) and on our [website](#).



## Fairphone 4 suppliers at a glance

What have we learned about our supply chain so far? Here's a snapshot of the most important findings. Note that these are not all the suppliers in our supply chain. We are mapping the totality step by step.

The Fairphone 4 supplier list presents all the first-tier and second-tier suppliers, as well as the third tier suppliers that we are directly engaged with. The full list of suppliers can be found in Annex 1.

We've identified a total of 95 suppliers, including:



1 Final Assembly



86 Tier 2 Suppliers



8 Tier 3 Suppliers

Component  
Manufacturers

We identified the production facilities (manufacturer) of 87 suppliers.

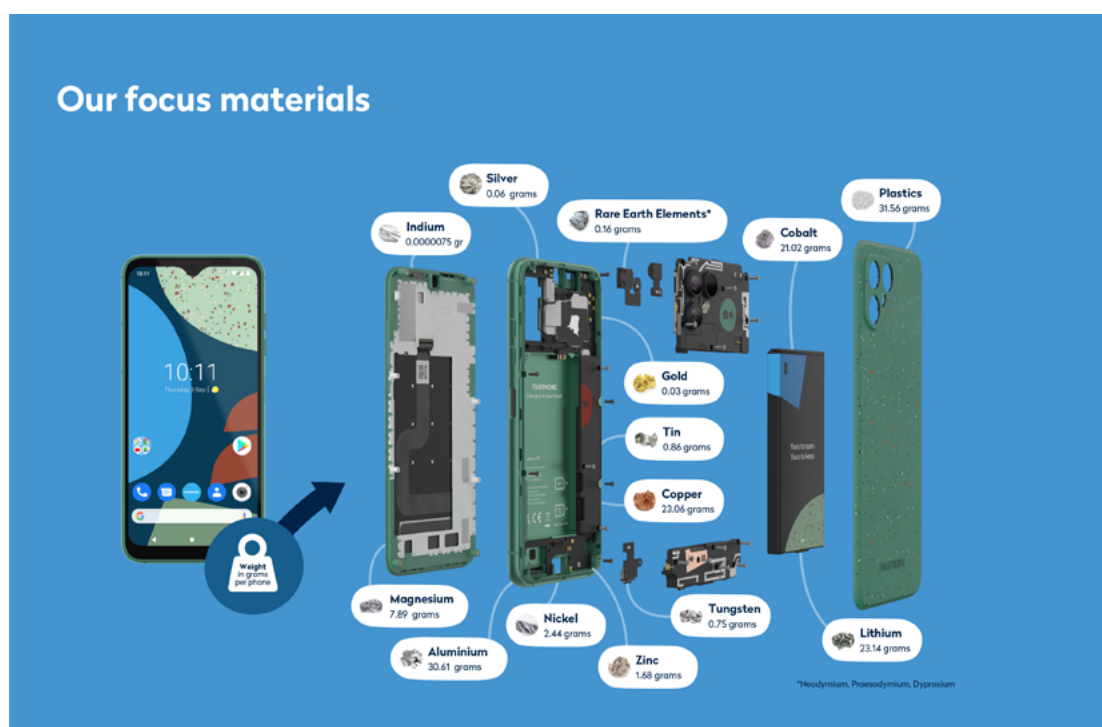
Location	Count	Percentage
China	71	82%
Japan	6	7%
Korea	4	5%
Taiwan	4	5%
Indonesia	1	1%
Singapore	1	1%

# 4 Upstream materials supply chain

## The raw materials that make up our phone

Based on our [Fair Materials Sourcing Roadmap](#) (published in 2021), we prioritize fair sourcing for key focus materials. We began our fair sourcing journey by first investigating the materials in a smartphone. This included reviewing the full material declarations from our final assembly manufacturer, and resulted in a list of over 50 materials. We then investigated the environmental and social impacts of these materials, their extraction and refinement, depletion rates, material criticality, and a range of other factors, including the potential for more sustainable and fair production.

The result was a list of 14 materials that are the focus of our improvement efforts:



Some of these materials are already subject to legislation and regulation, but Fairphone wants to see greater and more inclusive due diligence exerted by the industry and more investment into improving the social and environmental impacts of these materials.

We want to see more than industry compliance that limits itself to audits and material tracking:

we want to see continuous industry engagement with suppliers with a focus on collaboration and progressive improvement. We also want to put more focus on the voices of affected stakeholders in this process, including workers in factories and mines, and communities affected by such operations.



## Our step-by-step journey to create positive impact

In line with our Fair Sourcing principles, supply chain due diligence is not only about managing risks; it's addressing those risks as opportunities to create impact. For each focus material, we embark on a step-by-step journey, echoing our overall due diligence approach:

1. Research: Understanding the social and environmental issues in the supply chain and opportunities for positive impact
2. Supply chain mapping: Engaging with suppliers of key components where the focus materials are used, to identify who and where they source from
3. Supplier and partner engagement: Establish connections with key actors, initiatives, associations and partners on the ground in the mining areas
4. Program design: Engaging with key partners to develop a continuous improvement plan or a multi-stakeholder initiative
5. Program implementation: Fairphone (co-)invests time and financial resources in implementation of the improvement plan together with partners on the ground, often in multi-stakeholder initiatives
6. Continuous improvement: Monitoring progress over time and remaining engaged and invest over the long term.

We are proud to engage and invest in the places where the social and environmental issues are most widespread, because we believe that this is where we can have the biggest positive impact. You'll see several examples where we work with suppliers to improve the fairness and sustainability of their operations. When mining — particularly ASM — is the primary source of income for an entire community, the responsible option is not necessarily to abandon a supplier at the first sign of risk or negative impacts, but to work with them to improve, in line with the OECD Guidelines and the UN Guiding Principles of Business and Human Rights.

In 2022, we have advanced in making a positive change in materials supply chains by sourcing more responsibly mined materials, increasing our use of recycled materials and actively engaging with partners who can help us achieve these goals. More details on this can be found in our [Impact Report 2022](#).

## Due diligence on upstream materials supply chain

Due diligence is a continuous process which is both proactive and reactive to industry risks and regulatory developments. Fairphone is founded on the drive to create positive impact; we therefore engage in active due diligence not only to ensure compliance with legislative requirements, but to understand, prevent, mitigate and remediate adverse impacts associated with the upstream part of our supply chain, and to identify where Fairphone can show thought-leadership for positive impacts.

## Fair materials key components



## Scope, framework, and tools

When it comes to due diligence on the materials that go into our phones, five metals in particular within our supply chain<sup>1</sup> are the focus of industry-wide attention. They are:

- **Tin, tantalum, tungsten, and gold (3TG).** 3TG minerals are most often linked to problematic issues stemming from conflict-affected high risk areas — these minerals can be used to finance military groups, perpetuate human right abuses, and increase financial crimes. This is why they are covered in several regulations, such as the EU Conflict Minerals Regulation. Unlike the other three, tantalum is not one of our 14 focus materials, as it is hardly used in our smartphone, but we continue to conduct due diligence on it.
- **Cobalt.** Already in 2021 Fairphone added cobalt as a main focus for due diligence alongside 3TG. Although cobalt is not included in most formal definitions of conflict minerals, it can be linked to similar human rights risks as 3TG minerals such as in the Democratic Republic of Congo, home to more than 50% of the world's cobalt reserves.

The supply chain for 3TGs and cobalt consists of many tiers — beginning in the mines and flowing through various traders, exporters, smelters, refiners and multiple manufacturing tiers. 3TG and cobalt are contained in Fairphone devices and are scattered across dozens if not hundreds of various components — resulting in extensive lists of smelters and refiners with an even more extensive network of material sources and mines.

However, Fairphone's approach to due diligence on these materials combines the tools and practices

that the Responsible Minerals Initiative (RMI) provides to its members, in combination with our own Fair Sourcing Policy and Material Due Diligence Policy, as well as our active engagement on the ground to help address, improve identified risks and create positive impact (see our [Impact Report](#) for more).

Fairphone also supports and participates in many existing industry efforts to improve due diligence. We are an active member of the Responsible Minerals Initiative and engaged on the following:

- **Minerals working groups** — Fairphone is a part of the RMI's ASM (Artisanal and Small-scale Mining) Working Group, where we help define standards and best practice. We are also looking to engage further with the Emerging Minerals Working Group, which supports due diligence on minerals such as cobalt, lithium, nickel, copper.
- **Refiner and smelter standards and audits by RMI** — Fairphone builds on the RMI's efforts in engaging with smelters and refiners and in aligning standards for other supply chain tiers.
- **Conflict Minerals Reporting Template (CMRT) and Emerging Minerals Reporting Template (EMRT):** We use these tools to investigate our supply chains of 3TG and cobalt, and are now exploring how we can apply the new Pilot Mineral Reporting Template (PMRT) to other focus minerals. These tools are aligned and harmonized across the industry, and thus help suppliers fulfill their obligations towards other customers as well.

The Responsible Minerals Initiative (RMI) is a global organization which supports and promotes responsible mineral production and sourcing globally, including from conflict-affected and high risk areas. RMI provides companies with tools and resources that improve regulatory compliance, align with international standards, and support industry and stakeholder expectations. In addition, the RMI implements the Responsible Mining Assurance Programme, through which refiners and smelters are independently audited against the RMI's standards for tin, tantalum, tungsten, gold, cobalt, copper, lead, nickel, zinc smelters and refiners. The RMI's mission is to ensure that mineral supply chains contribute positively to social and economic development globally.



<sup>1</sup> Key Product Target Group; Smartphones, however we have set an improvement plan below to encompass accessories in the future. NB: This report encompasses smelters and refiners that provide materials for the Fairphone 4. Previous reports for the Fairphone 2, 3, and 3+ and the smelters and refiners used in their manufacture can be found [at our website](#).

## Results of our upstream due diligence 2022

Below we provide a snapshot of our most important findings on the smelters and refiners (SOR) in our tin, tantalum, tungsten, gold, cobalt and mica supply chains for the Fairphone 4. We have identified a total of **300** smelters and refiners of these minerals.

### Tin, tantalum, tungsten, and gold (3TG)

Our investigation found that **81%** of our suppliers reported on a company or user defined level, which means that they report smelters and refiners in their supply chain, but the material from these does not necessarily end up in Fairphone's products. The remainder **19%** reported on a product level.

CMRT Collection		
CMRT suppliers reported	47	100%
Report on company & user defined level	38	81%
Report on product (categories) level	9	19%

### Smelters and refiners

We have identified 231 eligible smelters and refiners. They come from:

Geographic Area	
Asia excluding China	92
China	58
Europe	36
North America	24
South America	16
Rest of the world	5
Total	231

**Third party audit status of smelters and refiners of the four minerals designated as “conflict minerals”<sup>2</sup>**

	<b>Total reported</b>	<b>Audit passed</b>	<b>Audit not passed</b>	<b>Engaged in auditing process</b>	<b>Unable to proceed</b>
<b>Gold</b>	<b>98</b>	<b>93</b>	<b>5</b>		
<b>Tantalum</b>	<b>33</b>	<b>33</b>			
<b>Tin</b>	<b>61</b>	<b>57</b>	<b>3</b>	<b>1</b>	
<b>Tungsten</b>	<b>39</b>	<b>37</b>	<b>1</b>		<b>1</b>
<b>Grand total</b>	<b>231</b>	<b>220</b>	<b>9</b>	<b>1</b>	<b>1</b>

Compared to 2021, the smelters and refiners in our supply chain have changed. This also results in a higher number of smelters and refiners who have not passed the audit. Fairphone has the goal of reaching 100% conformant smelters and refiners and is therefore making it a priority to reach out to these SOR through engagement with the RMI and with the suppliers who reported non-conformant SOR to explore the possibility of requesting a renewed audit or ending their relationship with the SOR. The full list of smelters and refiners is available in Annex 2.

<sup>2</sup> The Responsible Minerals Assurance Programme (RMAP) by RMI audits smelters and refiners on their due diligence practices with regards to minerals from high-risk and conflict-affected areas.

**Country of origin enquiry**

The SOR in our supply chain report sourcing the 4 minerals designated as “conflict minerals” from the following geographic areas:

	<b>Gold</b>	<b>Tungsten</b>	<b>Tin</b>	<b>Tantalum</b>
Smelters known to directly source from the DRC	0	2	3	9
Smelters known to directly source from the DRC's adjoining countries (but not the DRC itself) (CC)	1	4	3	10
Smelters known to directly source from CAHRAS (HR)	4	2	4	13
Smelters known to directly source from the recycled/scrap sources (R/S)	28	4	21	18
Smelters disclosed direct sources to auditors only (aggregated)	64	27	0	0
Smelters known to indirectly source from the DRC	0	3	4	15
Smelters known to indirectly source from the DRC's adjoining countries (but not the DRC itself) (CC)	0	7	4	15
Smelters known to indirectly source from CAHRAS (HR)	1	7	4	16
Smelters known to indirectly source the recycled/scrap sources (R/S)	1	10	9	14
Smelters disclosed indirect sources to auditors only (aggregated)	10	8	0	1

Fairphone actively encourages our suppliers and their SOR to source from the Democratic Republic of Congo and adjoining countries as well as other conflict-affected and high risk areas. This is because we strongly believe in remaining engaged in such areas, because mining often provides an important source of livelihood for the local community. Our aim is to contribute to improving practices in mining and mineral trading in these areas, and supporting continuous improvement to ensure the materials we source are conflict-free. This is in line with Fairphone's prioritization of positive impact over pure risk management.

**Cobalt and Mica**

Beyond the regulated minerals designated as “conflict minerals”, Fairphone also investigates and reports on our cobalt and mica supply chains, using the RMI's Extended Minerals Reporting Template (EMRT).

**EMRT Collection**

<b>EMRT suppliers reported</b>	<b>47</b>	<b>100%</b>
<b>Report on company &amp; user defined</b>	<b>38</b>	<b>81%</b>
<b>Report on product (categories) level</b>	<b>9</b>	<b>19%</b>

**Smelters and refiners location (cobalt and mica)**

We have identified 69 eligible smelters and refiners. They come from:

**Geographic area**

<b>Asia excluding China</b>	<b>11</b>
<b>China</b>	<b>35</b>
<b>Europe</b>	<b>5</b>
<b>North America</b>	<b>3</b>
<b>South America</b>	<b>10</b>
<b>Rest of the world</b>	<b>5</b>
<b>Total</b>	<b>69</b>

**Third party audit status of cobalt and mica smelters and refiners:**

Compared to 2021, the list of our cobalt smelters and refiners more than doubled. This also means we discovered 17 cobalt SOR who are not yet engaging in the Responsible Minerals Assurance Programme (RMAP) by the RMI. We are prioritizing outreach to them through our suppliers and engaging with RMI, to encourage these SOR to come on board. In addition, we are prioritizing engagement with the supplier who reported the non-conformant SOR about the possibility of requesting a renewed audit or ending their relationship with the SOR. The full list of smelters and refiners is available in Annex 2.

	Total reported	Audit passed	Audit not passed	In communication with RMI about audit	Communication suspended	Engaged In auditing process	Not Engaged in auditing process yet	Unable to proceed
Mica	2					1	1	
Cobalt	67	35	1	6	1	6	17	1
Total	69	35	1	6	1	7	18	1

## Upstream materials supply chain – engagement

### Using the results of due diligence to create positive impacts

Apart from ensuring that we are in compliance with existing regulations and best practice guidelines on due diligence, what sets Fairphone apart as a thought leader is our bottom-up fair sourcing approach. Not everything that's meeting the minimum legal or compliance requirements can be considered fair, and we look beyond the regulations around tin, tantalum, tungsten, gold and cobalt at opportunities for fair and sustainable sourcing of these and 10 other focus minerals and materials that make up the Fairphone 4. That is what we set out to do.

Indeed, our approach to due diligence is rooted in engagement and collaboration. We recognize that due diligence has to be more than paperwork, traceability and audits, which is unfortunately still often the industry's approach to this topic. In essence, our bottom-up approach aims to involve affected stakeholders (such as workers, mining communities, or communities affected by mining) along our supply chain as much as possible, and to enable their voices to be heard — after all, they understand best where the biggest needs for improvement lie and where the most positive impact can be generated.

We also look for ways to improve things on the ground directly, especially where we know that our industry has a responsibility due to its material use. We use our purchasing power to increase the demand for responsibly produced and traded minerals, and we also invest resources in supporting actors in and around mines to improve conditions. We create and participate in multi-stakeholder initiatives that work towards systemic and long-lasting changes on the ground. Our approach to due diligence is not limited to basic supply chain checks and ensuring we are in compliance, but pro-actively engaging and investing in improvements jointly with affected actors, even in the most difficult and sensitive places. We believe only this level of due diligence will lead to the positive changes that are so urgently needed in our sector.

### Embedded in a long-term vision

We base our actions regarding our 14 focus materials on our long term vision: a world in which we are truly circular - where materials can be used, reused and recycled to their full extent and we would not need to mine new materials to meet our material demand. Moving to a circular economy requires multiple interventions. The need for longer lasting products, improved repairability, re-use, collection, and recyclability of products are some of the key areas that need to be addressed. At Fairphone, we focus on many of these aspects, designing and supporting long-lasting products and incentivizing improved collection of end-of-life post-consumer waste through our take-back and recycling programs.

Yet the mining sector will remain a key supplier for decades to come. The growth in demand is projected to be exponential for certain minerals, especially those needed for our transition to a greener economy. But challenges also exist from the supply side of recycled materials: only a small proportion of generated e-waste is currently collected and recycled. And even when products are ready for recycling, not all materials can be fully recovered due to the complex combinations of materials in technological applications.

This is why we aim at improving both the mining and the recycling of materials.



### Fair mining

The mining sector does not come without problems. Both large scale mining (LSM) as well as artisanal and small-scale mining (ASM) are linked with social and environmental challenges. LSM operations usually span very large areas of land and can cause significant damage to the environment including air, water and soil pollution. Impacts on, and conflicts with, surrounding communities are a reality, due to pollution and the use of limited resources such as land, forests and water.

The ASM sector often operates informally, characterized by low to no mechanization, dangerous working conditions, environmental pollution and child labor. Although both LSM and ASM come with significant social and environmental challenges, they are also equipped with the ability to drive development and improve livelihoods in low and middle income countries. The mining sector is of key importance to developing economies and provides a livelihood for millions of people around the globe. The ASM sector employs over 44 million people worldwide and indirectly supports an estimated 150-200 million people. The LSM sector, although having low labor intensity, can have a large multiplier effect on surrounding sectors and job creation. One direct mining company employee may correspond to three to five employees elsewhere in the economy.

Our approach is therefore as follows: we first identify good practices, certifications and initiatives in mining. We then encourage and support specific suppliers to source from these to develop a fully transparent supply chain, component by component. We work with mines, smelters and suppliers to integrate fair sources into the supply chain. By driving demand for fair materials, we seek to catalyze investments, creating positive feedback loops around fair and sustainable practices. Where fair mining sources don't exist, we'll work to develop them. We recognize and acknowledge that some mines cannot change overnight, but can commit to improve and grow from meeting basic expectations to the highest levels of best practice: continuous improvement. That sometimes requires supporting them in that journey. We partner with international and local organizations that can provide capacity building, investments in improved equipment, and better market access.

### Recycling

E-waste has been defined as the worlds' fastest growing waste stream. While recycling is increasing steadily around the globe, end-of-life recycling rates are very low. This is due to relatively low efficiencies in the collection and processing of most metal-bearing discarded products, inherent limitations in recycling processes, and primary material is often relatively abundant and low-cost, thereby keeping down the price of scrap. The sourcing strategies of companies could be an important factor, as increasing the demand for post-consumer recycled materials can incentivize collection and recycling.

Fairphone therefore focuses on maximizing our use of post-consumer recycled materials, increasing options for responsible end-of-life disposal or recycling, and encouraging sustainable recycling chains. At the same time, we are aware that recycled sources, especially when they involve informal e-waste collection, dismantling and recycling in developing countries, come with high social and environmental risks. Here we see an important need for the industry to step up and create positive impact for people in the informal recycling chains ("urban miners").

Just as we do for mined sources, we research and investigate recycled sources, best practices, and actors to partner with. We encourage and support key suppliers in sourcing from recycled sources, and we invest in improving these sources where possible. Our goal is to invest in and build scalable sourcing models of fair post-consumer recycled materials, which the industry can replicate.

Beyond this, we have a take-back programme for gathering old phones from new customers, and we additionally recover phones discarded and dumped in Africa for recycling.

The Fairphone 4 launched in 2021 with the proud statement that it is e-waste neutral, meaning that for every Fairphone 4 phone and module we sell, another phone or the same amount of e-waste is either reused or recycled through Fairphone's efforts. We are also improving Fairphone's recyclability through design.

### Fair materials target and achievements to date

Our Fair material target is an average percentage of 70% (by weight) of the 14 focus materials that we aim to source more sustainably (or whose responsible production we aim to support) by 2023. As we work towards this KPI, we assess how effective our efforts are in addressing social and environmental issues and creating positive impact through our upstream material supply chain.

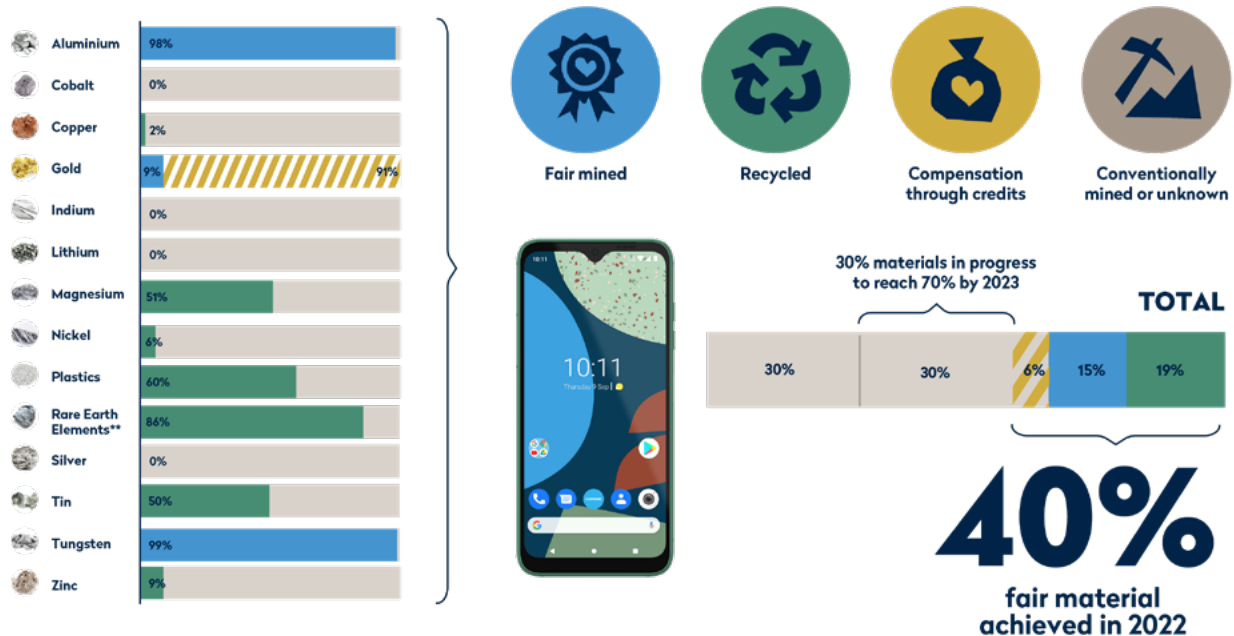
In 2022 we achieved 40% of 14 focus materials for the Fairphone 4. Where possible, we rerouted our supply chain to link more responsible sources with the manufacturer of the Fairphone 4 or with suppliers deeper in our supply chain. Where a traceable link with our supply chain was not possible, we have supported improvements in responsible production on the ground in line with our material consumption

— for example, by piloting Fairmined gold credits with the Alliance for Responsible Mining (for more details, see our [Impact Report](#)).

So far, for Fairphone 4 we have successfully integrated and supported fairly produced gold and tungsten, as well as recycled tin, aluminum, rare earth metals, zinc, copper, nickel, magnesium and plastics. Building responsible supply chains for all 14 focus materials and investing in improved practices where it is most needed requires sustained effort. In our 2022 [Impact Report](#), we provide detailed information on the steps we take to identify and assess, cease, prevent or mitigate adverse impacts and realize positive impact in each of our 14 focus materials supply chains. The diagram below provides a summary of actions taken per material

## Fair material sourcing status\* in 2022 for Fairphone 4

\* This doesn't include the materials in progress from (for example cobalt and lithium) mines where we run impact programs but are still building the connection with our supply chain.



\*\*Neodymium, Praseodymium, Dysprosium

## Focus materials: The steps we took in 2022



Research



Engage  
& trace



Build



Integrate



Continuous  
Improvement



Steps made before 2022



(Additional) steps made in 2022



Step yet to be made

Aluminium						<ul style="list-style-type: none"> <li>Retained a vendor certified by the Aluminium Stewardship Initiative in our value chain of our mid frame</li> </ul>
Cobalt						<ul style="list-style-type: none"> <li>Improved working conditions and child labour remediation at the mine-site and communities in the DRC with the Fair Cobalt Alliance.</li> </ul>
Copper						<ul style="list-style-type: none"> <li>Integrated recycled nickel, zinc, copper alloy in shielding</li> <li>Conducted research on further increasing recycled rate in nickel-zinc-copper alloy</li> </ul>
Gold						<ul style="list-style-type: none"> <li>Continued integration of Fairtrade certified gold into our supply chain</li> <li>Piloted Fairmined gold credits</li> <li>Supported research for a more scalable model for Fairtrade Gold in the electronics industry</li> </ul>
Indium						<ul style="list-style-type: none"> <li>Engaged with the LCD display supplier to investigate and report on recycled material use</li> </ul>
Lithium						<ul style="list-style-type: none"> <li>Exploring IRMA-certified lithium for our battery</li> <li>Continued support for the Responsible Lithium Partnership project</li> </ul>
Magnesium						<ul style="list-style-type: none"> <li>Integrated post-consumer recycled material in our LCD frame</li> </ul>
Nickel						<ul style="list-style-type: none"> <li>Integrated recycled nickel, zinc, copper alloy in shielding</li> <li>Conducted research on further increasing recycled rate in nickel-zinc-copper alloy</li> </ul>
Plastics						<ul style="list-style-type: none"> <li>Continued the integration of post-consumer recycled plastics in our LCD frame and housing parts</li> </ul>
Rare Earth Materials*						<ul style="list-style-type: none"> <li>Continued integration of recycled Rare Earth Elements in speaker &amp; vibration mechanism</li> </ul>
Silver						<ul style="list-style-type: none"> <li>Explored the integration of silver recovered from (informal) e-waste ("urban mining")</li> <li>Researched other fair mined or recycled sources</li> </ul>
Tin						<ul style="list-style-type: none"> <li>Continued integration of recycled tin in solder paste</li> <li>Supported unconditional cash transfers to DRC mine community</li> </ul>
Tungsten						<ul style="list-style-type: none"> <li>Continued integration of fair mined tungsten from ASM in our vibration mechanism</li> </ul>
Zinc						<ul style="list-style-type: none"> <li>Integrated recycled nickel, zinc, copper alloy in shielding</li> <li>Conducted research on further increasing recycled rate in nickel-zinc-copper alloy</li> </ul>

# 5 Partnerships and collaboration

## Partnerships and collaboration

Fairphone's end goal is sustainable and measurable impact. Beyond the above mentioned mineral-specific projects and partnerships that Fairphone engages in, we work together with others to improve industry-wide practises, both in the context of our top down due diligence as well as bottom-up engagement approaches.

### We are part of the:

**Responsible Business Alliance (RBA):** RBA is an industry coalition dedicated to corporate social responsibility in global supply chains, with a large membership base in the electronics industry. Fairphone participates in the Responsible Minerals Initiative (see below) and the Responsible Labor Initiative working groups.

### Clean Electronics Production Network (CEPN):

Fairphone is a signatory of the Towards Zero Exposure program, a leading initiative with the goal of ensuring workers are not exposed to hazardous chemicals. The program was developed and is facilitated by CEPN, a multi-stakeholder initiative of which Fairphone has been a member since 2017.

### European Partnership for Responsible Minerals

**(EPRM):** The EPRM is a multi-stakeholder partnership with the objective to increase the proportion of responsibly produced minerals from conflict-affected and high-risk areas (CAHRAs) and to support socially responsible extraction of minerals that contributes to local development. As one of the first members, Fairphone is actively participating in the working groups of the EPRM, sharing our experiences of due diligence and learning from others and participating in an EPRM-supported gold project (see also our Impact Report)

**Responsible Minerals Initiative (RMI):** RMI's vision is that mineral supply chains contribute positively to social economic development globally. It is one of the most utilized and respected resources for companies from a range of industries addressing responsible mineral sourcing issues in their supply chains. Beyond using the tools and guidance provided by RMI (see section Due Diligence), Fairphone also actively engages in the ASM Working Group and plans to engage further in the Working Groups on Emerging Minerals and Smelter Engagement.

### The Initiative for Responsible Mining Assurance

**(IRMA):** IRMA's vision is of a world where the mining industry respects human rights and aspirations of affected communities, provides safe, healthy and supportive workplaces, minimizes harm to the environment, and leaves positive legacies. IRMA is committed to transparency and continuous improvement in the mining sector—two aspects that are key in our Fair Sourcing Policy as well as our mission at Fairphone. With the increase of global demand for more responsible mining, IRMA offers a verification system for all mined materials, where the score is based on the social and environmental performance of mining sites, and takes into consideration the views of affected people, such as workers and nearby communities.

As a member, Fairphone is part of the buyers group. Our membership enables us to reach out to our suppliers in our supply chain and encourage them to be audited through IRMA. Through active outreach and engagement we have worked with our battery suppliers to integrate lithium from IRMA-assessed mines into our supply chain and aim to achieve this in 2023.

In addition to the examples highlighted above, we actively participate in the following platforms:

- Aluminum Stewardship Initiative (ASI)
- B Corporation
- Circular Electronics Partnership (CEP)
- European Raw Materials Alliance (ERMA)
- Fair Cobalt Alliance (founder, managed by TIF)
- FairTec (founder)
- IDH's Roadmap on Living Wages
- Living Wage and Income Lab
- MVO Nederland
- Responsible Labor Initiative (RLI)
- Responsible Lithium Partnership (RLP)
- Right to Repair Campaign
- Social Enterprise NL
- UN Global Compact

# 6 Summary of results and improvements

## Summary of results and improvements

### Summary of key results

- Our investigation shows that the smelters and refiners of tin, tantalum, tungsten, gold and cobalt in our supply chain changed from 2021. This is why we have a higher number of non-conformant smelters or refiners still requiring outreach and on-boarding into the Responsible Minerals Assurance Programme. We are making it a priority to engage with our suppliers who reported either of these types of smelters or refiners in order for them to request (re-)auditing or, in case a smelter or refiner is not responsive, explore the option to end the business relationship. We also continue our engagement and outreach through the RMI.
- In 2022 we did more in-depth engagement of tier 2 and even tier 3 suppliers (beyond strategic suppliers) to better understand their material sourcing and advance our fair materials goals. This was especially the case for suppliers using battery materials such as cobalt, lithium, nickel and copper.
- In the supplier selection phase for new products, we also put a lot of emphasis on supply chain mapping and transparency, where we use our own supplier self-assessment questionnaire and direct engagements to understand current supply chain practices and set initial improvement targets.
- We have reviewed and updated our due diligence tools to better capture the environmental performance of our suppliers — including CO2 target-setting in line with SBTi — to allow us to better understand and support our supply chain partners to reduce greenhouse gas emissions going forward.
- We advanced significantly in our goal to integrate fair materials from fair mined and/or recycled sources into our products or supply chains and made sure that our material-use footprint creates positive impacts. More details on this can be found in our 2022 Impact Report.
- We have supported direct and indirect (tier 2) suppliers to achieve improved working conditions and a lower environmental impact by sponsoring worker surveys and assessments, as well as capacity building training for workers, worker representatives and management.
- We have implemented our living wage program

with an indirect tier 2 supplier in 2022, an industry first. We have calculated the product price premium needed to close the gap to a living wage for the production of a component used in Fairphone 4, and distributed the bonus to the lowest paid workers at the component supplier's factory.

### Our improvement plan:

In the spirit of continuous improvement, we want to strengthen our supply chain engagement and due diligence practices even further in 2023. We aim to work on the following key points:

- Expanding the scope of this report to include additional Fairphone products
- Rolling out more in-depth due diligence and supply chain investigations and engagements on even more materials, especially those used in batteries
- Widening and strengthening our engagement with strategic suppliers, while also supporting more of them with knowledge sharing and improvement plans where necessary, going beyond a mere data-collection approach
- Continuing to enable inclusion of workers' and other affected stakeholders' voices in the due diligence process and expand this further in our value chains
- Engaging with industry associations and audit schemes to better align the different standards and audit programs and ensuring that they capture a wide set of human rights and environmental aspects in line with the UN Guiding Principles and the OECD Guidelines, moving beyond the narrow focus on "conflict minerals" and the risks defined in Annex II of the OECD Guidance.
- Streamlining our approach by assessing upcoming regulatory requirements on due diligence and reporting (such as the EU Battery Regulation, the Corporate Sustainability Due Diligence Directive and the Corporate Sustainability Reporting Directive) to adapt and update our systems and mechanisms. This is being done with the goal of streamlining these numerous requirements to ensure our approach supports us in creating positive impacts for people and planet.

# 7 Conclusion



## Join our Journey

We continue to prove, every day, the idea at the core of Fairphone: we can create consumer electronics that are fairer to human beings and kinder to the earth. And while that takes effort, those efforts are rewarded by customers and suppliers who appreciate that their choices have consequences, and given an ethical choice, will make an ethical choice.

We at Fairphone, our suppliers, and the entire electronics industry are still far from the goals of a 100% fair and sustainable product that fits seamlessly into a circular economic model in which nothing is wasted. But we move closer to that goal every year.

Fairphone is in a unique position to co-develop new approaches to tackle systemic issues in the mining, recycling, and manufacturing sectors.

Our principles and practices, if more widely adopted, would mean substantial improvements in the lives of miners, factory workers, and their communities. But we can't do this alone. We welcome partnerships to help drive change. We welcome feedback from our suppliers and customers. We welcome the sharing of our learnings. We welcome new opportunities to accelerate, wherever we can, the goal of moving the entire industry beyond conflict-free materials to truly fair sourcing, and from unethical to fair, sustainable and circular business practices.

# 8 Annexes

## Annex 1: List of suppliers for the Fairphone 4

Consumer electronics supply chains include several complex, often opaque tiers of suppliers, ranging from first-tier assembly manufacturers (direct suppliers) to second and third-tier component manufacturers. Many electronics manufacturers only have insight into their direct suppliers and perhaps some second-tier component manufacturers.

At Fairphone, we are working to gain an in-depth understanding of the complicated layers of our supply chain. In addition to our first-tier assembly manufacturer, we have mapped all second-tier suppliers, and are progressively including third and fourth-tier suppliers in our research. By uncovering all of the different players and manufacturing locations in our smartphone supply chain, we can start engaging with suppliers, establishing relationships and initiating programs for improvement.

### Understanding our List of Suppliers

The list below includes all of the first, second and third-tier Fairphone 4 suppliers that we know of to date, and it is accurate to the best of our knowledge at the time of publication. We will periodically update the information in this document as we learn more.

Here is a bit more information about how the list is arranged:

**Locations:** Whenever possible, we have listed the (approximate) manufacturing location. If this information was not available, we have provided the location of the company headquarters.

**Categories:** Suppliers are grouped by the type of components they produce. Some suppliers may be mentioned more than once because they produce different kinds of components, sometimes with different manufacturing locations.

**Tiers:** Supplier tiers are calculated from the point of the final assembly. So the final assembly partner is tier 1, (component) suppliers to the final assembly partner are tier 2, their (component) suppliers make up tier 3, etc.

**Suppliers included:** This list includes our first tier assembly manufacturer and all component manufacturers that we have mapped to date. To provide a clear overview, it does not include refiners, smelters, traders or mines which are listed in Annex 2.

**Please note:** This list reflects the suppliers currently providing components or materials for the Fairphone 4. Inclusion on the list does not imply that these manufacturers are “fairer” than their competitors, or that Fairphone has a direct relationship with these companies and is influencing their business practices.

## Phone Assembly – Fairphone 4

Tier	Supplier	Address: Manufacturer	Website
1	Huizhou TCL Mobile Communication Co., Ltd.	Manufacturer: No.86, Hechang 7th West Road, Zhongkai Hi-tech Development District, Huizhou, Guangdong, China	<a href="http://www.tclcomm.com">www.tclcomm.com</a>

## Semiconductors - Integrated Circuits, Discretes, LEDs

Tier	Supplier	Address: Manufacturer or Headquarters	Website
2	Weier Semiconductor (Shanghai) Co., Ltd.	Headquarters: 2F, No.88, ShangKe Road, Pudong District, Shanghai 201210, China	<a href="http://www.omnivision-group.com/#/home">www.omnivision-group.com/#/home</a>
2	JCET Group Co., Ltd.	Manufacturer: 275 Middle Binjiang Road, Jiangyin, Jiangsu, China	<a href="http://www.vanchip.com">www.vanchip.com</a>
2	Taiwan Semiconductor Manufacturing (TSMC)	Manufacturer: 9, Ctreation Road, Hsinchu Science Park, Hsinchu, 30077, Taiwan	<a href="http://www.tsmc.com">www.tsmc.com</a>
2	Unisem	Manufacturer: No. 8-2 Kexin Road, High-Tech West Zone, Chengdu, Sichuan, China	<a href="http://www.sg-micro.com">www.sg-micro.com</a>
2	Samsung Electronics (Korea)	Manufacturer: 1, Samsung jeonja-ro, hwaseong-si, Gyeonggi-do 445-330, Korea	<a href="http://www.samsung.com">www.samsung.com</a>
2	Suzhou ASE Semiconductor Co., Ltd.	Manufacturer: 188 Suhong Middle Road, Suzhou, Jiangsu, China	<a href="http://www.maxscend.com">www.maxscend.com</a>
2	Moda-Innochips	Manufacturer: 42-7, Dongsan-Ro 27 Beon-Gil Wonsi-dong Danwon-Gu, Korea	<a href="http://www.innochips.co.kr/en/">www.innochips.co.kr/en/</a>
2	RF360 Singapore Pte.Ltd.	Manufacturer: 166 Kallang Way, Singapore	<a href="http://www.qualcomm.com">www.qualcomm.com</a>
2	RF360 Technology(Wuxi) Co.,Ltd.	Manufacturer: No.17 Xi Shi Road, Xinwu District, Wuxi, 214028 Jiangsu,China	<a href="http://www.qualcomm.com">www.qualcomm.com</a>
2	Qualcomm Technologies,Inc	Headquarters: 5775 Morehouse Dr.San Diego CA 92121, United States	<a href="http://www.qualcomm.com">www.qualcomm.com</a>
2	Samsung Electro-Mechanics (Tianjin) Co.,Ltd.	Manufacturer: No.80 Xiqing road, Western Area of Economic-Technological Development Area, Tianjin, China	<a href="http://www.product.samsungsem.com/index.do">www.product.samsungsem.com/index.do</a>
2	Huahong Hongli Semiconductor Manufacturing (Shanghai) Co., Ltd.	Manufacturer: China (Shanghai) Pilot Free Trade Zone, Pudong, Shanghai, China	<a href="http://www.huahonggrace.com">www.huahonggrace.com</a>
2	Tripod	Manufacturer: Wuxi, Jiangsu, China	<a href="http://www.tripod-tech.com">www.tripod-tech.com</a>
2	Awinic technology (Shanghai) Co.,ltd	Headquarters: 15 / F, Block B, China Railway Nord International Center, 908 Xiuwen Road, Minhang District, Shanghai, China	<a href="http://www.awinic.com">www.awinic.com</a>
2	KYOCERA	Manufacturer: 1166-6, Hehimizo-cho,Higashio-mi-city,Shiga,527-8555, Japan	<a href="http://www.kyocera.com">www.kyocera.com</a>
2	NEXPERIA	Manufacturer: Guangdong, China	<a href="http://www.nexperia.com">www.nexperia.com</a>
2	ST	Manufacturer: Jiangyin, Jiangsu, China	<a href="http://www.st.com">www.st.com</a>
2	UNIOHM	Manufacturer: Kunshan, Jiangsu, China	<a href="http://www.uniohm.com.tw">www.uniohm.com.tw</a>
2	Pixelworks Semiconductor Technology (Shanghai) Co., Ltd	Manufacturer: Unit 1701-1706 No.1 Sandhill Plaza 2290 Zuchongzhi Road, Pudong New District, Shanghai, 201210, China	<a href="http://www.pixelworks.com">www.pixelworks.com</a>
2	Lingsen Precision Industries, Ltd.	Manufacturer: 36-1, South 2nd Road, Tanzi Dist., Taichung, Taiwan.	<a href="https://www.lingsen.com.tw/index.aspx">https://www.lingsen.com.tw/index.aspx</a>

## Passives

Tier	Supplier	Address: Manufacturer or Headquarters	Website
2	Samsung Electro-Mechanics (Tianjin) Co.,Ltd.	Manufacturer: No.80 Xiaqing Road, Western Area of Economic-Technological Development Area, Tianjin, China	<a href="https://www.samsungsem.com">https://www.samsungsem.com</a>
2	Sunlord Electronics (Shenzhen) Co., Ltd.	Manufacturer: Sunlord Industrial Park, Guanlan Da Fu Yuan, GuanGuang Road, Longhua, Shenzhen, China	<a href="http://www.sunlordinc.com">www.sunlordinc.com</a>
2	Microgate Technology (Shenzhen) Co., Ltd.	Manufacturer: Microgate Technology Building, No.16 , Science&Technology Road , Pingshan District , Shenzhen China	<a href="http://www.szmicrogate.com">www.szmicrogate.com</a>
2	Eyang Technology Development Co., Ltd.	Manufacturer: 101C, EYANG Building, No.13 Gaoxin North 4th Rd, Songpingshan Community, Xili Subdistrict, Nanshan District, Shenzhen, Guangdong Province, China	<a href="http://www.szeyang.com">www.szeyang.com</a>
2	Yandong Microelectronic (BeiJing) Co.,Ltd	Manufacturer: No.2 Wanhong West Street, Xibajianfang, DongZhiMenWai, ChaoYang District, BeiJing, China	<a href="http://www.prisemi.com">www.prisemi.com</a>
2	TFMF	Manufacturer: 288 Chongchuan Road, Nantong, Jiangsu, China	<a href="http://www.prisemi.com">www.prisemi.com</a>
2	Murata Manufacturing Co., Ltd.	Manufacturer: No.6, Xingchuang Road 1, Zone B, Wuxi Export Processing Zone, Wuxi, Jiangsu, China	<a href="http://www.corporate.murata.com">www.corporate.murata.com</a>
2	Fenghua Advanced Technology Holding (Guangdong) CO.,LTD	Manufacturer: Fenghua Electronic Industrial City, 18th Fenghua road, Zhaoqing City, Guangdong Province,China	<a href="http://www.china-fenghua.com">www.china-fenghua.com</a>
2	PT.KDS INDONESIA	Manufacturer: Blok O-20, O-21 Kawasan Berikat MM2100 Industrial Town Cikarang Barat, Bekasi 17520 Jawa Barat, Indonesia	<a href="http://www.kds.info">www.kds.info</a>
2	Viiyong Eletronic Technology (Guangdong) Co., LTD.	Manufacturer: Viiyong Hi-Tech Park, No.1 Chuangye 2nd Road, Shuangdong Sub-district, Luoding, Guangdong,China	<a href="http://www.viiyong.com">www.viiyong.com</a>
2	TDK Corporation Ouchi Factory	Manufacturer: 146-1, Haraigawa, Ouchisankawa, Yurihonjo-Shi, Akita 018-0731, Japan	<a href="http://www.tdk.com">www.tdk.com</a>
2	Taiyo Yuden (Guangdong) Co., Ltd.	Manufacturer: No.13 Keji Dong Road, Shi Jie Town, Dongguan, Guangdong, China	<a href="http://www.yuden.co.jp/cs/">www.yuden.co.jp/cs/</a>
2	Taiyo Yuden (Wakayama) Co., Ltd.	Manufacturer: 4026-22, Inanbara, Inami-cho, Hidaka-gun, Wakayama 649-1532, Japan	<a href="http://www.yuden.co.jp/cs/">www.yuden.co.jp/cs/</a>
2	Walsin Technology Corp	Manufacturer: No.7 , South 4th Road, K.E.P.Z Kaohsiung, 80681, Taiwan	<a href="http://www.passivecomponent.com">www.passivecomponent.com</a>
2	WISOL Electronics (Tianjin) Co.,Ltd	Manufacturer: D1-1/3,D2-2 International Industrial City XEDA, Tianjin, China	<a href="http://www.wisol.co.kr/">www.wisol.co.kr/</a>

## Electromechanical, MEMS

Tier	Supplier	Address: Manufacturer or Headquarters	Website
2	OBO Pro.2 Inc.	Manufacturer: No.15,Dianchang Road,Bixi street,Changshu City,Jiangsu Province, China	www.obopro2.com
3	AAC Technology (Nanning) Co., Ltd.	Manufacturer: Shenguan collagen think tank 3# factory, 9# factory, 13# factory, No.13, Guokai Avenue East, Jiangnan District, Nanning, China	www.aactechnologies.com
2	Taiwan Semiconductor Manufacturing (TSMC)	Manufacturer: 9, Ccreation Rd. 1, Hsinchu Science Park, Hsinchu, 30077, Taiwan	www.akm.com
2	Baolong M&E (Zhejiang) Co.,Ltd.	Manufacturer: No.388 Ningkang East Road,Chengdong street,Yueqing City,Whenzhou City,Zhejiang Province,China	www.vibrationmotors.com
3	Tianjia	Manufacturer: 171 Yu Yin Road, YaoBei village, Hong Qiao, Yue Qing, ZheJiang, China	No Official Website
2	Hefei Bayu Electronic	Manufacturer: 2nd floor, building 127, Shifeng Science and Technology Park, Mashantou seventh industrial zone, Guangming New District, Shenzhen, Guangdong, China	No Official Website
2	SENORTEK	Headquarters: 11F., No. 6, Taiyuan 2nd St. Zhubei City Hsinchu County, 302, Taiwan	www.sensortek.com.tw

## Connectors, Clips, Spring Contacts, Cables

Tier	Supplier	Address: Manufacturer or Headquarters	Website
2	HIROSE ELECTRIC CO LTD	Manufacturer: 2-21-2 Agamae, Miyakoshi,Iwateken Japan 3-87, Ookawara, Koriyama, Fukushima Japan 36-14 Toudai, Ichinosekishi, Iwateken Japan	www.hirose.com
2	HIROSE KOREA CO LTD	Manufacturer: No.143, Gongdan1daero, Siheung-si, Gyeonggi-do, Korea	www.hirose.com
2	Yuliang Hongzheng Eleectron science Co., Ltd.	Manufacturer: Shabu No.2 Industrial Zone,Dalang Town,Dongguan, Guangdong,China	No Official Website
2	Electric Connector Technology Co.Ltd	Headquarters: Guangming District, Shenzhen, Guangdong, China	www.ectsz.com
2	KEIRAKU	Manufacturer: 1999 Hanpu Road, Kunshan, Jiangsu, China	www.keiraku.com.cn

## Display, Touch Screen

Tier	Supplier	Address: Manufacturer or Headquarters	Website
2	DJN	Manufacturer: No. 93-7, Xintang Road, Rentian Community, Fuhai Street, Baoan District, Shenzhen, Guangdong, China	<a href="http://www.djnlcd.com">www.djnlcd.com</a>
3	Corning	Headquarters: One Riverfront Plaza Corning, New York 14831, United States	<a href="http://www.corning.com/">www.corning.com/</a>

## Cameras

Tier	Supplier	Address: Manufacturer	Website
2	Rayprus	Manufacturer: No.1216 Lanhua Road Economic&Technology, JinCheng, ShanXi, China	<a href="https://www.rayprustech.com/">https://www.rayprustech.com/</a>

## Flexible Printed Circuits

Tier	Supplier	Address: Manufacturer	Website
2	Hongneng Technology (Shenzhen) Co., Ltd	Manufacturer: Huayu industrial Sancun street, Doumen District, Zhuhai, China	No Official Website

## Soldering Paste

Tier	Supplier	Address: Manufacturer	Website
2	Alpha Assembly Solutions (Shenzhen) co., Ltd.	Manufacturer: Tangxiayong Community, Yan Luo Town, Baoan District, Shenzhen City, China	<a href="http://www.macdermidalpha.com">www.macdermidalpha.com</a>

## Battery

Tier	Supplier	Address: Manufacturer	Website
2	Kayo Battery (Dongguan) Co., Ltd	Manufacturer: No.2, ShaJingTou ten Lane, Matigang Village, DaLingShan Town, Dongguan City, Guangdong, China	<a href="http://www.kayobattery.com">www.kayobattery.com</a>
2	ICT	Manufacturer: 42-7, Dongsan-ro 27beon-gil, Danwon-gu, Ansan-si, Gyeonggi-do, Korea	<a href="http://www.innochips.co.kr">www.innochips.co.kr</a>
3	Amperex Technology	Manufacturer: 1 West Industrial Road, Songshan Lake Dongguan, Guangdong, China	<a href="http://www.atlbattery.com">www.atlbattery.com</a>

## Plastics

Tier	Supplier	Address: Manufacturer or Headquarters	Website
2	Celanese(Nanjing)Chemical Co.,Ltd.	Manufacturer: No. 66, Fangshui West Road, Jiangbei new material science and Technology Park, Nanjing, Jiangsu, China	www.celanese.com.cn
2	Allfine Optics Technology	Manufacturer: Building#3,1552# road,Gangxia, Chang An town,Dongguan, Guangdong, China	www.allfine.com.cn
2	Mikolta	Manufacturer: 18 Bihu Road, Songbailang Industrial Zone, Dalang, Dongguan, Guangdong, China	www.mikolta.com
2	Baolijia Plastic (Shenzhen) Co.,Ltd	Manufacturer: A-28 Block, Fu Chengao Industrial, PingHu Community, LongGang District, Shenzhen, Guangdong, China	No Official Website
2	Worldhom	Manufacturer: Dongguan, Guangdong, China	No Official Website
3	Sabic	Headquarters: PO Box 5101, Riyadh 11422, Saudi Arabia	www.sabic.com
3	Covestro	Headquarters: Leverkusen Kaiser-Wilhelm-Allee 60 51373 Leverkusen, Germany	www.covestro.com
3	Mocom	Headquarters: Mühlenhagen 35, DE - 20539 Hamburg, Germany	www.mocom.com
2	Yuan Jun Matel&Plastic (Dongguan) Co., Ltd	Manufacturer: Room 101, Building 2, No.7 ,No.1Industrial Street, tangbiantou, Dongcheng Street, Dongguan City, China	No Official Website

## Antenna

Tier	Supplier	Address: Manufacturer	Website
2	Beizhe Communication Technology (Shanghai) Co., Ltd	Manufacturer: 105, Building 1, 2899 South Lianhua Road, Minhang District, Shanghai city, China	www.szyosong.com



## Shields, Metal Parts, Screws

Tier	Supplier	Address: Manufacturer or Headquarters	Website
2	Xiangjian Precision Industry (Shenzhen) co.,Ltd	Manufacturer: Building 42, Datian Yangxi-fang Industrial Zone, Dongfang community, Songgang street, Bao'an District, Shenzhen, Guangdong, China	www.szxj.net
2	Kechuang copper Co., Ltd.	Manufacturer: 3/F, building No.109, Shigu Industrial Avenue, Tangxia, Dongguan, Guangdong, China	www.dgkcty.com
2	Yongjin Metal Technology Co.,Ltd	Manufacturer: 99 Chuangye Avenue, Lanxi Economic Development Zone, Zhejiang, China	www.yjskj.com
2	Chengguang Metal Products (Dongguan) Co.,Ltd	Manufacturer: Xin Tang Industrial Park, Houjie Town, Dongguan, Guangdong, China	No Official Website
2	JITS Communication Co., Ltd.	Manufacturer: Building 7, No.391, Shatian section, Gangkou Avenue, Shatian Town, Dongguan City, Guangdong Province, China	www.jitstech.com
2	Xinkexin Industrial Material (Shenzhen) Co., Ltd	Manufacturer: Room 1009, No.34, Shangzao village, Gaofeng Community, Dalang street, Bao'an District, Shenzhen, Guangdong, China	No Official Website
2	Qiaofu Hardware Accessories (Dongguan) Co., Ltd	Manufacturer: 101, building 1, No. 8, 2nd Lane, Shatian Environmental Protection Middle Road, Shatian Town, Dongguan, Guangdong, China	www.qiaofuwujin.com
2	Fengxiang Precision Metal (Shenzhen) Co., Ltd	Manufacturer: 101, building 19, No.156, Yanluo Road, Yanchuan Community, Yanluo street, Bao'an District, Shenzhen, Guangdong, China	www.fengxiangjm.com
2	Linkconn	Manufacturer: Shenzhen, Guangdong, China	www.linkconn.com
2	Gongchuang	Manufacturer: Suzhou , Jiangsu, China	No Official Website
2	QORVO	Manufacturer: No. 6868 Dongfanghong East Road, Dezhou Economic & Technological Development Area, Dezhou City, Shandong Province 253084, China No.17 Tongji Middle Road, the Industrial Park of Beijing Economic and Technological Development Area 100176 Beijing, China	www.qorvo.com
3	Kam Kiu Aluminum Extrusion Co., Ltd	Manufacturer: Dajiang County, Taishan City, Guangdong, China	www.kamkiu.com
2	Baizhuo Technology (Shenzhen) Co., Ltd.	Manufacturer: 101, No. 3, Gegongling Industrial Zone, Liulian Community, Pingdi Street, Longgang District, Shenzhen City, Guangdong Province, China	No Official Website

## Packaging , Labels, Adhesive

Tier	Supplier	Address: Manufacturer	Website
2	Jiaya Enterprise (Guangdong)Co., Ltd	Manufacturer: No.9.Zone ZhongKai High-Tech- nology Development Zone, Huizhou city, Guangdong province, China	www.jiaya.com
2	Hairunxin New Material Technology (Huizhou) Co., Ltd.	Manufacturer: A1,Building 18, Alex Industrial Park, No. 19, Huifeng East 1st Road, Huitai industrial Zone, Huizhou City, Guangdong province, China	No Official Website
2	Huitian New Material (Shanghai) Co., Ltd.	Manufacturer: No.251 Wenji Rd, Songjiang of Shanghai city,China	www.huitian.net.cn
2	NYSTEIN	Manufacturer: Nystein Building, Yizhong Industry Park, Jinshadun, Dalang Town, Dong- guan, Guangdong, China	www.nystein.com
2	Haopin Technology (Huizhou) Co., Ltd.	Manufacturer: Linhai Industrial Park, Shuikou Town, Huicheng District, Huizhou City, Guang- dong Province, China	www.haopin168.com
2	New Litop	Manufacturer: Nystein Building, Yizhong Industry Park, Jinshadun, Dalang Town, Dong- guan, Guangdong, China	www.Litop88.com
2	Dongsheng Paper Products (Huizhou) Co., Ltd.	Manufacturer: Building 6, Daxi Hujing Indus- trial Zone, Huicheng District, Huizhou City, Guangdong Province, China	No Official Website
2	Ideal Color Printing (Guangdong) Co., Ltd.	Manufacturer: Longling Industrial, Heyuan, Guangdong, China	www.ideal.gd.cn
2	Chuangyi Paper (Dongguan) Co., Ltd.	Manufacturer: Room 905, No. 25, Shangyang Road, Chang'an Town, Dongguan, Guang- dong, China	No Official Website
2	Guoxin Trade (Shenzhen) Co., Ltd.	Manufacturer: Room 605, Building 425, Bagua 4th Road, Futian District, Shenzhen, Guang- dong, China	No Official Website
2	Hatcher Supply Chain (Shenzhen) Co., Ltd.	Manufacturer: Room 1302, B Unit of ABCD, No. 3 Building, Phase 1, Tian An Cloud Park, Gangtou Community, Bantian Sub-district, Longgang District,Shenzhen, Guangdong, China	No Official Website
2	Hengwei	Manufacturer: Huizhou, Guangdong, China	No Official Website
2	Xinlitong Packaging Products (Shenzhen) Co., Ltd	Manufacturer: Room 101.201, Building 1, Building A46, Fucheng'ao Industrial Zone, Fucheng'ao Community, Pinghu Street, Long- gang District, Shenzhen, China	No Official Website

## Annex 2: List of smelters and refiners for Fairphone 4

All the details shared here are accurate to the best of our knowledge at the time of publication. Inclusion on the list does not imply that these smelters and refiners are fairer than their competitors, or that Fairphone has a direct relationship with these companies and is influencing their business practices. We will update the information yearly and are currently collecting smelter and refiner information related to our other focus materials, and will publish it in a future edition of this document.

## Gold

Smelter ID	Standard Smelter Name	Country Location	Audit Status
CID001147	Metalor Technologies (Suzhou) Ltd.	CHINA	Audit passed
CID000707	Heraeus Metals Hong Kong Ltd.	CHINA	Audit passed
CID000082	Asahi Pretec Corp.	JAPAN	Audit passed
CID000401	Dowa	JAPAN	Audit passed
CID000807	Ishifuku Metal Industry Co., Ltd.	JAPAN	Audit passed
CID000937	JX Nippon Mining & Metals Co., Ltd.	JAPAN	Audit passed
CID000981	Kojima Chemicals Co., Ltd.	JAPAN	Audit passed
CID001119	Matsuda Sangyo Co., Ltd.	JAPAN	Audit passed
CID001188	Mitsubishi Materials Corporation	JAPAN	Audit passed
CID001193	Mitsui Mining and Smelting Co., Ltd.	JAPAN	Audit passed
CID001259	Nihon Material Co., Ltd.	JAPAN	Audit passed
CID001798	Sumitomo Metal Mining Co., Ltd.	JAPAN	Audit passed
CID001875	Tanaka Kikinzoku Kogyo K.K.	JAPAN	Audit passed
CID001938	Tokuriki Honten Co., Ltd.	JAPAN	Audit passed
CID000019	Aida Chemical Industries Co., Ltd.	JAPAN	Audit passed
CID001622	Shandong Zhaojin Gold & Silver Refinery Co., Ltd.	CHINA	Audit passed
CID001761	Solar Applied Materials Technology Corp.	TAIWAN	Audit passed
CID002243	Gold Refinery of Zijin Mining Group Co., Ltd.	CHINA	Audit passed
CID001153	Metalor Technologies S.A.	SWITZERLAND	Audit passed
CID002030	Western Australian Mint (T/a The Perth Mint)	AUSTRALIA	Audit passed
CID000077	Argor-Heraeus S.A.	SWITZERLAND	Audit passed
CID001352	MKS PAMP SA	SWITZERLAND	Audit passed
CID001980	Umicore S.A. Business Unit Precious Metals Refining	BELGIUM	Audit passed
CID001078	LS-NIKKO Copper Inc.	KOREA, REPUBLIC OF	Audit passed
CID002778	WIELAND Edelmetalle GmbH	GERMANY	Audit passed
CID001157	Metalor USA Refining Corporation	UNITED STATES OF AMERICA	Audit passed
CID001161	Metalurgica Met-Mex Penoles S.A. De C.V.	MEXICO	Audit passed
CID001993	United Precious Metal Refining, Inc.	UNITED STATES OF AMERICA	Audit passed
CID001149	Metalor Technologies (Hong Kong) Ltd.	CHINA	Audit passed
CID001152	Metalor Technologies (Singapore) Pte., Ltd.	SINGAPORE	Audit passed
CID001916	Shandong Gold Smelting Co., Ltd.	CHINA	Audit passed
CID002003	Valcambi S.A.	SWITZERLAND	Audit passed
CID002224	Zhongyuan Gold Smelter of Zhongjin Gold Corporation	CHINA	Audit passed
CID001736	Sichuan Tianze Precious Metals Co., Ltd.	CHINA	Audit passed
CID001534	Royal Canadian Mint	CANADA	Audit passed
CID000090	Asaka Riken Co., Ltd.	JAPAN	Audit passed
CID000185	CCR Refinery - Glencore Canada Corporation	CANADA	Audit passed

CID001113	Materion	UNITED STATES OF AMERICA	Audit passed
CID001325	Ohura Precious Metal Industry Co., Ltd.	JAPAN	Audit passed
CID000924	Asahi Refining Canada Ltd.	CANADA	Audit passed
CID000920	Asahi Refining USA Inc.	UNITED STATES OF AMERICA	Audit passed
CID002763	8853 S.p.A.	ITALY	Audit not passed
CID000425	Eco-System Recycling Co., Ltd. East Plant	JAPAN	Audit passed
CID002561	Emirates Gold DMCC	UNITED ARAB EMIRATES	Audit passed
CID002762	L'Orfebre S.A.	ANDORRA	Audit passed
CID000015	Advanced Chemical Company	UNITED STATES OF AMERICA	Audit passed
CID000035	Agosi AG	GERMANY	Audit passed
CID002560	Al Etihad Gold Refinery DMCC	UNITED ARAB EMIRATES	Audit passed
CID000041	Almalyk Mining and Metallurgical Complex (AMMC)	UZBEKISTAN	Audit passed
CID000058	AngloGold Ashanti Corrego do Sitio Mineracao	BRAZIL	Audit passed
CID000113	Aurubis AG	GERMANY	Audit passed
CID002863	Bangalore Refinery	INDIA	Audit passed
CID000128	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	PHILIPPINES	Audit passed
CID000157	Boliden AB	SWEDEN	Audit passed
CID000176	C. Hafner GmbH + Co. KG	GERMANY	Audit passed
CID000189	Cendres + Metaux S.A.	SWITZERLAND	Audit not passed
CID000233	Chimet S.p.A.	ITALY	Audit passed
CID000264	Chugai Mining	JAPAN	Audit passed
CID000359	DSC (Do Sung Corporation)	KOREA, REPUBLIC OF	Audit passed
CID003424	Eco-System Recycling Co., Ltd. North Plant	JAPAN	Audit passed
CID003425	Eco-System Recycling Co., Ltd. West Plant	JAPAN	Audit passed
CID002459	Geib Refining Corporation	UNITED STATES OF AMERICA	Audit passed
CID000694	Heimerle + Meule GmbH	GERMANY	Audit passed
CID000711	Heraeus Germany GmbH Co. KG	GERMANY	Audit passed
CID000801	Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.	CHINA	Audit passed
CID000814	Istanbul Gold Refinery	TURKEY	Audit passed
CID002765	Italpreziosi	ITALY	Audit passed
CID000823	Japan Mint	JAPAN	Audit passed
CID000855	Jiangxi Copper Co., Ltd.	CHINA	Audit passed
CID000957	Kazzinc	KAZAKHSTAN	Audit passed
CID000969	Kennecott Utah Copper LLC	UNITED STATES OF AMERICA	Audit passed
CID002511	KGHM Polska Miedz Spolka Akcyjna	POLAND	Audit passed
CID002605	Korea Zinc Co., Ltd.	KOREA, REPUBLIC OF	Audit passed
CID000689	LT Metal Ltd.	KOREA, REPUBLIC OF	Audit passed
CID003575	Metal Concentrators SA (Pty) Ltd.	SOUTH AFRICA	Audit passed
CID002509	MMTC-PAMP India Pvt., Ltd.	INDIA	Audit passed
CID001220	Nadir Metal Rafineri San. Ve Tic. A.S.	TURKEY	Audit passed

CID001236	Navoi Mining and Metallurgical Combinat	UZBEKISTAN	Audit passed
CID003189	NH Recytech Company	KOREA, REPUBLIC OF	Audit passed
CID002779	Ogussa Österreichische Gold- und Silber-Scheideanstalt GmbH	AUSTRIA	Audit passed
CID002919	Planta Recuperadora de Metales SpA	CHILE	Audit passed
CID001397	PT Aneka Tambang (Persero) Tbk	INDONESIA	Audit passed
CID001498	PX Precinox S.A.	SWITZERLAND	Audit passed
CID001512	Rand Refinery (Pty) Ltd.	SOUTH AFRICA	Audit passed
CID002582	REMONDIS PMR B.V.	NETHERLANDS	Audit passed
CID002761	SAAMP	FRANCE	Audit passed
CID002973	Safimet S.p.A	ITALY	Audit not passed
CID002290	SAFINA A.S.	CZECHIA	Audit passed
CID001555	Samduck Precious Metals	KOREA, REPUBLIC OF	Audit not passed
CID001585	SEMPSA Joyeria Plateria S.A.	SPAIN	Audit passed
CID002516	Singway Technology Co., Ltd.	TAIWAN	Audit not passed
CID002918	SungEel HiMetal Co., Ltd.	KOREA, REPUBLIC OF	Audit passed
CID002580	T.C.A S.p.A	ITALY	Audit passed
CID002615	TOO Tau-Ken-Altyn	KAZAKHSTAN	Audit passed
CID001955	Torecom	KOREA, REPUBLIC OF	Audit passed
CID002314	Umicore Precious Metals Thailand	THAILAND	Audit passed
CID002100	Yamakin Co., Ltd.	JAPAN	Audit passed
CID002129	Yokohama Metal Co., Ltd.	JAPAN	Audit passed

## Tin

Smelter ID	Standard Smelter Name	Country Location	Audit Status
CID002158	Yunnan Chengfeng Non-ferrous Metals Co., Ltd.	CHINA	Audit passed
CID001070	China Tin Group Co., Ltd.	CHINA	Audit passed
CID001482	PT Timah Tbk Mentok	INDONESIA	Audit passed
CID001477	PT Timah Tbk Kundur	INDONESIA	Audit passed
CID001460	PT Refined Bangka Tin	INDONESIA	Audit passed
CID001898	Thaisarco	THAILAND	Audit passed
CID002517	O.M. Manufacturing Philippines, Inc.	PHILIPPINES	Audit passed
CID000538	Gejiu Non-Ferrous Metal Processing Co., Ltd.	CHINA	Audit passed
CID002773	Aurubis Beerse	BELGIUM	Audit passed
CID000468	Fenix Metals	POLAND	Audit passed
CID001182	Minsur	PERU	Audit passed
CID001337	Operaciones Metalurgicas S.A.	BOLIVIA (PLURINATIONAL STATE OF)	Audit passed
CID002036	White Solder Metalurgia e Mineracao Ltda.	BRAZIL	Audit passed
CID000555	Gejiu Zili Mining And Metallurgy Co., Ltd.	CHINA	Audit not passed
CID001105	Malaysia Smelting Corporation (MSC)	MALAYSIA	Audit passed
CID001173	Mineracao Taboca S.A.	BRAZIL	Audit passed
CID002180	Tin Smelting Branch of Yunnan Tin Co., Ltd.	CHINA	Audit passed
CID000228	Chenzhou Yunxiang Mining and Metallurgy Co., Ltd.	CHINA	Audit passed
CID000292	Alpha	UNITED STATES OF AMERICA	Audit passed
CID000402	Dowa	JAPAN	Audit passed
CID000438	EM Vinto	BOLIVIA (PLURINATIONAL STATE OF)	Audit passed
CID001142	Metallic Resources, Inc.	UNITED STATES OF AMERICA	Audit passed
CID001191	Mitsubishi Materials Corporation	JAPAN	Audit passed
CID001231	Jiangxi New Nanshan Technology Ltd.	CHINA	Audit passed
CID001314	O.M. Manufacturing (Thailand) Co., Ltd.	THAILAND	Audit passed
CID001399	PT Artha Cipta Langgeng	INDONESIA	Audit passed
CID001406	PT Babel Surya Alam Lestari	INDONESIA	Audit passed
CID001453	PT Mitra Stania Prima	INDONESIA	Audit passed
CID001458	PT Prima Timah Utama	INDONESIA	Audit passed
CID001468	PT Stanindo Inti Perkasa	INDONESIA	Audit passed
CID001490	PT Tinindo Inter Nusa	INDONESIA	Audit not passed
CID001539	Rui Da Hung	TAIWAN	Audit passed
CID002503	PT ATD Makmur Mandiri Jaya	INDONESIA	Audit passed
CID002774	Aurubis Berango	SPAIN	Audit passed
CID002834	Thai Nguyen Mining and Metallurgy Co., Ltd.	VIET NAM	Audit passed
CID002835	PT Menara Cipta Mulia	INDONESIA	Audit passed
CID003116	Guangdong Hanhe Non-Ferrous Metal Co., Ltd.	CHINA	Audit passed

CID003205	PT Bangka Serumpun	INDONESIA	Audit passed
CID003325	Tin Technology & Refining	UNITED STATES OF AMERICA	Audit passed
CID003379	Ma'anshan Weitai Tin Co., Ltd.	CHINA	Audit passed
CID003381	PT Rajawali Rimba Perkasa	INDONESIA	Audit passed
CID003387	Luna Smelter, Ltd.	RWANDA	Audit passed
CID002593	PT Rajehan Ariq	INDONESIA	Audit passed
CID001428	PT Bukit Timah	INDONESIA	Audit passed
CID001463	PT Sariwiguna Binasentosa	INDONESIA	Audit passed
CID001402	PT Babel Inti Perkasa	INDONESIA	Audit passed
CID002696	PT Cipta Persada Mulia	INDONESIA	Audit passed
CID003190	Chifeng Dajingzi Tin Industry Co., Ltd.	CHINA	Audit passed
CID003524	CRM Synergies	SPAIN	Audit passed
CID000448	Estanho de Rondonia S.A.	BRAZIL	Audit passed
CID003582	Fabrica Aurichio Industria e Comercio Ltda.	BRAZIL	Audit passed
CID002844	HuiChang Hill Tin Industry Co., Ltd.	CHINA	Audit passed
CID002468	Magnu's Minerais Metais e Ligas Ltda.	BRAZIL	Audit passed
CID003449	PT Mitra Sukses Globalindo	INDONESIA	Audit passed
CID003868	PT Putera Sarana Shakti (PT PSS)	INDONESIA	Audit passed
CID002816	PT Sukses Inti Makmur	INDONESIA	Audit passed
CID002706	Resind Industria e Comercio Ltda.	BRAZIL	Audit passed
CID002455	CV Venus Inti Perkasa	INDONESIA	Audit passed
CID000309	PT Aries Kencana Sejahtera	INDONESIA	Audit passed
CID001486	PT Timah Nusantara	INDONESIA	Engaged in auditing process
CID001908	Gejiu Yunxin Nonferrous Electrolysis Co., Ltd.	CHINA	Audit not passed



## Tungsten

Smelter ID	Standard Smelter Name	Country Location	Audit Status
CID002317	Jiangxi Xinsheng Tungsten Industry Co., Ltd.	CHINA	Audit passed
CID000004	A.L.M.T. Corp.	JAPAN	Audit passed
CID000105	Kennametal Huntsville	UNITED STATES OF AMERICA	Audit passed
CID000258	Chongyi Zhangyuan Tungsten Co., Ltd.	CHINA	Audit passed
CID000568	Global Tungsten & Powders Corp.	UNITED STATES OF AMERICA	Audit passed
CID000769	Hunan Jintai New Material Co., Ltd.	CHINA	Audit passed
CID000825	Japan New Metals Co., Ltd.	JAPAN	Audit passed
CID000875	Ganzhou Huaxing Tungsten Products Co., Ltd.	CHINA	Audit passed
CID002082	Xiamen Tungsten Co., Ltd.	CHINA	Audit passed
CID002320	Xiamen Tungsten (H.C.) Co., Ltd.	CHINA	Audit passed
CID002494	Ganzhou Seadragon W & Mo Co., Ltd.	CHINA	Audit passed
CID002513	Hunan Shizhuyuan Nonferrous Metals Co., Ltd. Chenzhou Tungsten Products Branch	CHINA	Audit passed
CID002541	H.C. Starck Tungsten GmbH	GERMANY	Audit passed
CID002542	TANIOBIS Smelting GmbH & Co. KG	GERMANY	Audit passed
CID002543	Masan High-Tech Materials	VIET NAM	Audit passed
CID002551	Jiangwu H.C. Starck Tungsten Products Co., Ltd.	CHINA	Audit passed
CID002589	Niagara Refining LLC	UNITED STATES OF AMERICA	Audit passed
CID000218	Guangdong Xianglu Tungsten Co., Ltd.	CHINA	Audit passed
CID000766	Hunan Chenzhou Mining Co., Ltd.	CHINA	Audit passed
CID002044	Wolfram Bergbau und Hutten AG	AUSTRIA	Audit passed
CID002316	Jiangxi Yaosheng Tungsten Co., Ltd.	CHINA	Audit passed
CID002318	Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.	CHINA	Audit passed
CID002321	Jiangxi Gan Bei Tungsten Co., Ltd.	CHINA	Audit passed
CID002833	ACL Metais Eireli	BRAZIL	Audit not passed
CID002502	Asia Tungsten Products Vietnam Ltd.	VIET NAM	Audit passed
CID002641	China Molybdenum Tungsten Co., Ltd.	CHINA	Audit passed
CID003468	Cronimet Brasil Ltda	BRAZIL	Audit passed
CID003401	Fujian Ganmin RareMetal Co., Ltd.	CHINA	Audit passed
CID003609	Fujian Xinlu Tungsten Co., Ltd.	CHINA	Audit passed
CID002645	Ganzhou Haichuang Tungsten Co., Ltd.	CHINA	Audit passed
CID002315	Ganzhou Jiangwu Ferrotungsten Co., Ltd.	CHINA	Audit passed
CID003417	Hubei Green Tungsten Co., Ltd.	CHINA	Audit passed
CID000966	Kennametal Fallon	UNITED STATES OF AMERICA	Audit passed
CID003388	KGETS Co., Ltd.	KOREA, REPUBLIC OF	Audit passed
CID003407	Lianyou Metals Co., Ltd.	TAIWAN	Audit passed
CID002319	Malipo Haiyu Tungsten Co., Ltd.	CHINA	Audit passed
CID002845	Moliren Ltd.	RUSSIAN FEDERATION	Unable to Proceed

CID002827	Philippine Chuangxin Industrial Co., Inc.	PHILIPPINES	Audit passed
CID002830	Xinfeng Huarui Tungsten & Molybdenum New Material Co., Ltd.	CHINA	Audit passed

## Tantalum

Smelter ID	Standard Smelter Name	Country Location	Audit Status
CID000211	Changsha South Tantalum Niobium Co., Ltd.	CHINA	Audit passed
CID000460	F&X Electro-Materials Ltd.	CHINA	Audit passed
CID000616	XIMEI RESOURCES (GUANGDONG) LIMITED	CHINA	Audit passed
CID000914	JiuJiang JinXin Nonferrous Metals Co., Ltd.	CHINA	Audit passed
CID000917	Jiujiang Tanbre Co., Ltd.	CHINA	Audit passed
CID001163	Metallurgical Products India Pvt., Ltd.	INDIA	Audit passed
CID001192	Mitsui Mining and Smelting Co., Ltd.	JAPAN	Audit passed
CID001200	NPM Silmet AS	ESTONIA	Audit passed
CID001277	Ningxia Orient Tantalum Industry Co., Ltd.	CHINA	Audit passed
CID001969	Ulba Metallurgical Plant JSC	KAZAKHSTAN	Audit passed
CID002492	Hengyang King Xing Lifeng New Materials Co., Ltd.	CHINA	Audit passed
CID002504	D Block Metals, LLC	UNITED STATES OF AMERICA	Audit passed
CID002505	FIR Metals & Resource Ltd.	CHINA	Audit passed
CID002512	Jiangxi Dinghai Tantalum & Niobium Co., Ltd.	CHINA	Audit passed
CID002544	TANIOBIS Co., Ltd.	THAILAND	Audit passed
CID002545	TANIOBIS GmbH	GERMANY	Audit passed
CID002548	Materion Newton Inc.	UNITED STATES OF AMERICA	Audit passed
CID002549	TANIOBIS Japan Co., Ltd.	JAPAN	Audit passed
CID002550	TANIOBIS Smelting GmbH & Co. KG	GERMANY	Audit passed
CID002557	Global Advanced Metals Boyertown	UNITED STATES OF AMERICA	Audit passed
CID002558	Global Advanced Metals Aizu	JAPAN	Audit passed
CID002842	Jiangxi Tuohong New Raw Material	CHINA	Audit passed
CID001522	Yanling Jincheng Tantalum & Niobium Co., Ltd.	CHINA	Audit passed
CID001175	Mineracao Taboca S.A.	BRAZIL	Audit passed
CID001891	Telex Metals	UNITED STATES OF AMERICA	Audit passed
CID002539	KEMET de Mexico	MEXICO	Audit passed
CID001869	Taki Chemical Co., Ltd.	JAPAN	Audit passed
CID001076	AMG Brasil	BRAZIL	Audit passed
CID002506	Jiujiang Zhongao Tantalum & Niobium Co., Ltd.	CHINA	Audit passed
CID001508	QuantumClean	UNITED STATES OF AMERICA	Audit passed
CID002707	Resind Industria e Comercio Ltda.	BRAZIL	Audit passed
CID003583	RFH Yancheng Jinye New Material Technology Co., Ltd.	CHINA	Audit passed
CID002508	XinXing HaoRong Electronic Material Co., Ltd.	CHINA	Audit passed

## Cobalt

Smelter ID	Standard Smelter Name	Country Location	Audit Status
CID003210	Lanzhou Jinchuan Advanced Materials Technology Co., Ltd.	CHINA	Audit passed
CID003209	Gem (Jiangsu) Cobalt Industry Co., Ltd.	CHINA	Audit passed
CID003278	Niihama Nickel Refinery, Sumitomo Metal Mining	JAPAN	Audit passed
CID003255	Quzhou Huayou Cobalt New Material Co., Ltd.	CHINA	Audit passed
CID003228	Umicore Olen	BELGIUM	Audit passed
CID003226	Umicore Finland Oy	FINLAND	Audit passed
CID003225	Zhejiang Huayou Cobalt Company Limited	CHINA	Audit passed
CID003406	Murrin Murrin Nickel Cobalt Plant	AUSTRALIA	Audit passed
CID003280	Compagnie de Tifnout Tiranimine	MOROCCO	Audit passed
CID003212	Ganzhou Tengyuan Cobalt New Material Co., Ltd.	CHINA	Audit passed
CID003398	Zhejiang New Era Zhongneng Technology Co., Ltd.	CHINA	Audit passed
CID003377	Jiangxi Jiangwu Cobalt industrial Co., Ltd.	CHINA	Engaged in auditing process
CID003411	Hunan CNGR New Energy Science & Technology Co., Ltd.	CHINA	Audit passed
CID003378	Jingmen GEM Co., Ltd.	CHINA	Audit passed
CID003447	Jiangxi Rui da Xinnengyuan Technology Co., Ltd.	CHINA	Not engaged in auditing yet
CID003291	Guangdong Jiana Energy Technology Co., Ltd.	CHINA	Audit passed
CID003261	Kamoto Copper Company	CONGO, DEMOCRATIC REPUBLIC OF THE	Audit passed
CID003275	La Compagnie de Traitement des Rejets de Kingamyambo S.A. (Metalkol S.A.)	CONGO, DEMOCRATIC REPUBLIC OF THE	Audit passed
CID003429	Tenke Fungurume Mining SA	CONGO, DEMOCRATIC REPUBLIC OF THE	In Communication with RMI about audit
CID003426	SOCIETE MINIERE DU KATANGA (SOMIKA SARL)	CONGO, DEMOCRATIC REPUBLIC OF THE	Engaged in auditing process
CID003211	Zhuhai Kelixin Metal Materials Co., Ltd.	CHINA	Audit passed
CID003232	Dynatec Madagascar Company	MADAGASCAR	Engaged in auditing process
CID003233	JSC Kolskaya Mining and Metallurgical Company (Kola MMC)	RUSSIAN FEDERATION	Unable to Proceed
CID003403	Glencore Nikkelverk Refinery	NORWAY	In Communication with RMI about audit
CID003264	Chemaf Etoile	CONGO, DEMOCRATIC REPUBLIC OF THE	Audit passed
CID003239	Port Colborne Refinery	CANADA	Engaged in auditing process
CID003279	Mine de Bou-Azzer	MOROCCO	Audit passed
CID003215	Tianjin Maolian Science & Technology Co., Ltd.	CHINA	Audit passed
CID003293	Jiangsu Xiongfeng Technology Co., Ltd.	CHINA	Audit passed
CID003927	Anhui Hanrui New Materials Co., Ltd.	CHINA	Audit passed
CID003481	Chizhou CN New Materials and Technology Co., Ltd.	CHINA	Audit passed
CID003473	CoreMax Corporation	TAIWAN	Audit passed
CID003415	Cosmo Chemical, Ltd.	KOREA, REPUBLIC OF	Audit passed

CID003469	Fairsky Industrial Co., Limited	CHINA	Not engaged in auditing yet
CID003227	Gangzhou Yi Hao Umicore Industry Co.	CHINA	In Communication with RMI about audit
CID003384	Ganzhou Highpower Technology Co., Ltd.	CHINA	Audit passed
CID003213	Guangxi Yinyi Advanced Material Co., Ltd.	CHINA	Audit passed
CID003610	Guizhou CNGR Resource Recycling Industry Development Co., Ltd.	CHINA	Audit passed
CID003577	Harima Refinery, Sumitomo Metal Mining	JAPAN	Audit passed
CID003219	Hunan Brulp Recycling Technology Co., Ltd.	CHINA	In Communication with RMI about audit
CID003470	Hunan Jinxin New Material Holding Co., Ltd.	CHINA	Engaged in auditing process
CID003404	Hunan Yacheng New Materials Co., Ltd.	CHINA	Audit passed
CID003491	ICoNiChem	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Not engaged in auditing yet
CID003537	Mechema Chemicals (Thailand) Co., Ltd.	THAILAND	Not engaged in auditing yet
CID003536	Mechema Chemicals shang-yu	CHINA	Not engaged in auditing yet
CID003535	Mechema Korea, Co., Ltd.	KOREA, REPUBLIC OF	Not engaged in auditing yet
CID003533	Mechema Taiwan Plant 1	TAIWAN	Not engaged in auditing yet
CID003534	Mechema Taiwan Plant 2	TAIWAN	Audit passed
CID003252	Nanjing Hanrui Cobalt	CHINA	Not engaged in auditing yet
CID003221	Nantong Xinwei Nickel Cobalt Technology Development Co., Ltd.	CHINA	Audit not passed
CID003465	Ningbo Hubang New Material Co., Ltd.	CHINA	Audit passed
CID003422	Ningbo Yanmen Chemical Co., Ltd.	CHINA	Outreach Required
CID003390	NORILSK NICKEL HARJAVALTA OY	FINLAND	Audit passed
CID003538	PT Mechema Indonesia	INDONESIA	Not engaged in auditing yet
CID003266	Societe pour le Traitment du Terril de Lubumbashi (STL)	CONGO, DEMOCRATIC REPUBLIC OF THE	Engaged in auditing process
CID003338	SungEel HiTech Co., Ltd.	KOREA, REPUBLIC OF	Audit passed
CID003466	Xiangtan Huacheng Nickel Cobalt New Material Co., Ltd.	CHINA	Not engaged in auditing yet
CID003376	XTC New Energy Materials (Xiamen) LTD.	CHINA	Not engaged in auditing yet
CID003526	Zhejiang Greatpower Cobalt Materials Co., Ltd.	CHINA	Audit passed
CID003303	Vale New Caledonia	NEW CALEDONIA	In Communication with RMI about audit
CID003385	METAL MINES SARL	CONGO, DEMOCRATIC REPUBLIC OF THE	Not engaged in auditing yet
CID003442	Ruashi Mining SAS	CONGO, DEMOCRATIC REPUBLIC OF THE	Not engaged in auditing yet
CID003464	MKM - La Miniere de Kalumbwe Myunga	CONGO, DEMOCRATIC REPUBLIC OF THE	Not engaged in auditing yet
CID003571	Hefei Rongjie Metal Technology Co., Ltd.	CHINA	In Communication with RMI about audit
CID003584	Vale – Long Harbour Processing Plant (LHPP)	CANADA	Communication Suspended
CID003640	W&Q Metal Products Co., Limited	CHINA	Not engaged in auditing yet
CID003803	Vital Materials Workshop	CHINA	Not engaged in auditing yet

## Mica

Smelter ID	Standard Smelter Name	Country Location	Audit Status
CID003512	Yamaguchi Mica	JAPAN	Engaged in auditing process
CID003591	Imerys Mica Kings Mountain, Inc.	UNITED STATES OF AMERICA	Not engaged in auditing yet

