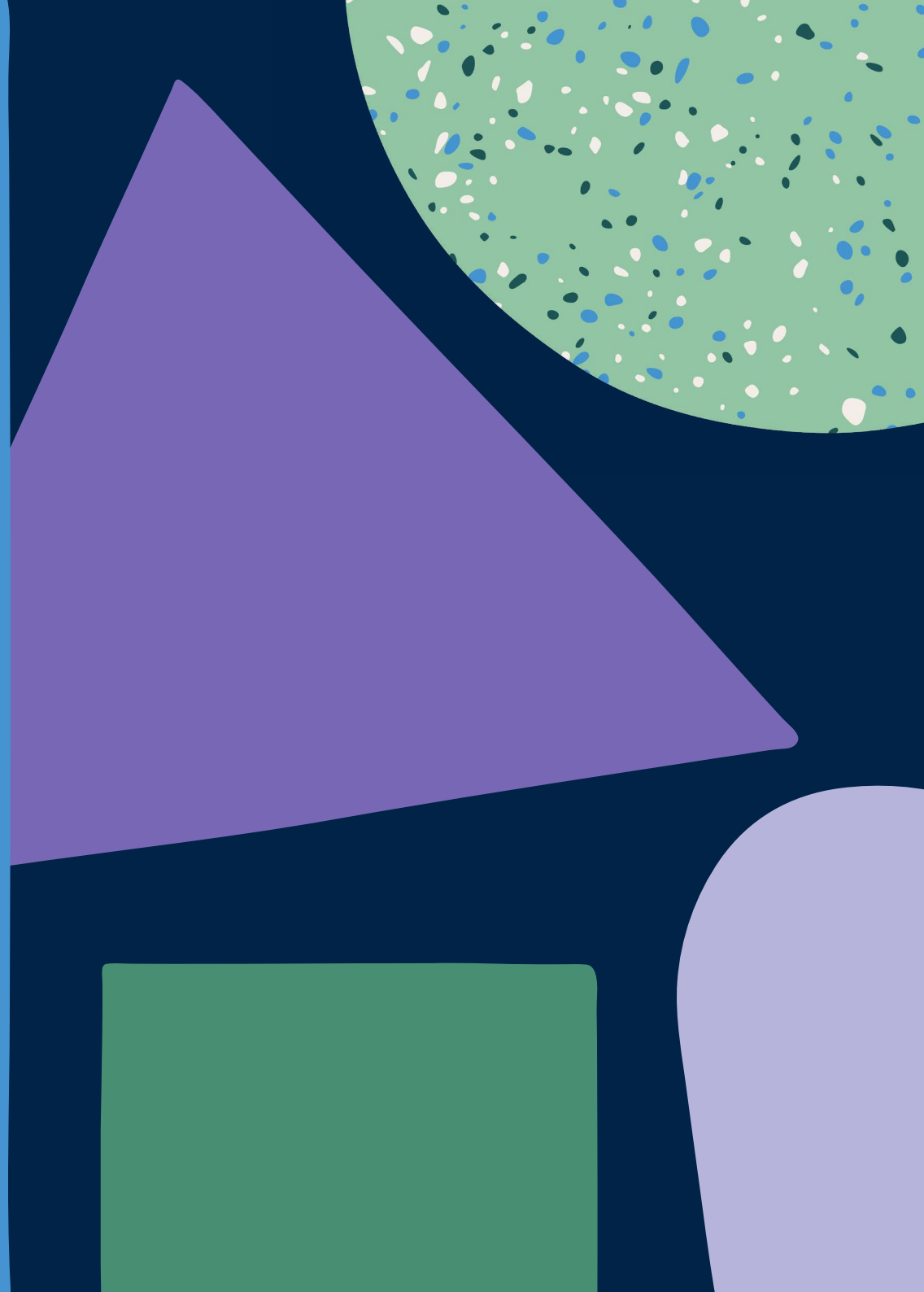


FAIRPHONE

FAIRPHONE'S IMPACT 2022

Change is in your hands



THE SOLUTION EXIST

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The solutions exist

INTRODUCTION BY EVA GOUWENS, FAIRPHONE CEO

“Fairphone turns ten in 2023, and as I look back on the last year of our first decade, I feel immense pride. We met every single one of our Impact goals in 2022 — a first we can all celebrate. But reflecting on that success also makes me feel some disappointment.”

“We received only limited responses from my industry colleagues to our challenge to provide a living wage for factory workers or fair materials across their supply chains. In 2022 we sold more phones than any other year in Fairphone history, but, being fully transparent, we did fall short of our [ambitious growth goals](#).”

“**True sustainability for Fairphone means the well-being of both our planet and people.**”

— EVA GOUWENS



A world that met the threat of COVID-19 with extraordinary bursts of social responsibility and moments of inspiring courage and selflessness now finds itself struggling with the consequences of a war in Ukraine, soaring inflation and energy costs, tough economic headwinds and the ongoing injustices and brittleness in the global supply chain.

Our industry is lagging behind in its response to the big environmental and social challenges to safeguard our future. True sustainability for Fairphone means the well-being of both our planet and people. I've seen very little action when it comes to improving the lives of workers and miners, or slowing our wholesale consumption of nature.

Seriously — it shouldn't be this hard. We say it every year: many of the solutions already exist, and others just need the right support to develop. All that's missing is the will to make them happen; a simple readjustment of priorities.

Many companies advertise their small steps toward sustainability as world-changing progress in their global marketing campaigns. However, it's important to avoid getting too caught up in the hype and recognize the need for meaningful action. We can't keep wasting time on empty promises and must hold companies accountable. Clearly, most tech companies are only making minimal efforts toward real impact, so it's time for the industry to take responsibility and prioritize the issues at hand. It will require genuine effort, but setting high standards and keeping companies accountable can lead to meaningful change.

In the world of handheld electronic devices, Fairphone has continued to prove that a steady march toward circularity, sustainability, and a fairer world is possible. That it's profitable. And that brands which fiercely live these values will continue to capture the imaginations and loyalties of people young and old who are in open rebellion against extinction.

This report is our transparent account of our performance against our Key Performance Indicators (KPIs). But unlike most businesses, our KPIs are not limited to the things that determine our financial health. They're indicators of the impact we're having on the health of our planet, and well-being of the people who make our phones. Fairphone has never been just about selling electronics: we're out to change an industry which has made consumers' lives better while making the world worse — with mountains of e-waste, unsafe mines, corruption, violence, child labor, and harrowing factory conditions. We simply don't accept that these are the necessary or acceptable costs of doing business.

Doing the best we can to be better

The numbers in this report tell a story. One in which the invisible harm of electronic devices and our industry isn't hidden away from our customers, but made visible, confronted, and improved. A story of doing the best we can to be better and being honest about when we fail.

We aim to craft the world's most ethical phone. Not just for people who share our values and mission, but for anyone who simply wants a great phone that does less harm. Something that gives you a little glow of pride every time you pick it up. The Fairphone has evolved from a proof of an ethical concept to a triumph of functional, repairable design. From a phone that only the most committed environmental and human rights activists would love, to a phone that's a joy to use. It's designed to be the best expression of what a phone can be; to reflect our best hopes for what our world can be.

That's why I can look at our impact last year with pride and hope, despite the challenges still facing our industry. No truly profound revolution or social transformation in history has ever looked inevitable.

I recently saw a quote from Vaclav Havel that spoke perfectly to this:

“ Hope is definitely not the same thing as optimism. It is not the conviction that something will turn out well, but the certainty that something makes sense, regardless of how it turns out....”

— VACLAV HAVEL

That pretty much sums up our way of working. We were told a more ethical phone wasn't possible; that we'd never make it profitable; that we'd never survive as a small fish in such a vast pond. But we've stubbornly carried on doing what made sense, regardless of how anyone thought it might turn out.

We're going to continue being positively stubborn. Stubborn about convincing our industry colleagues to create more ethical products. Stubborn about working with our community of Fairphone users to amplify the message that solutions exist. Stubborn about proving there's a vast and growing demand for products whose manufacturers embrace their social and environmental responsibilities.

And as we move into our tenth year, we'll continue to take deep pride in our own efforts, and live in hope. Not the lazy optimism that all will be well, but in Havel's version of hope, a version that takes work: make the right choices. Do the right thing. Make care for people and planet a natural way of doing business. Invite others to do so. Enable others to do so. And yes, demand others to do so. Work as if that's the only way to do business — until so many of us are working in ways that are fair to people, fair to nature, and fit for the future, that it's no longer exceptional. It's simply a matter of common sense.”

1

Now is the time for change

The triple crisis of climate change, nature loss and pollution marches on.¹ We see little evidence of significant global efforts at improving the way workers are treated, compensated, and the conditions they toil in. Our call to industry colleagues to guarantee a living wage for the people who make our products has largely been met with silence. Our mission to transform our industry is becoming ever more urgent.

¹ <https://www.unep.org/news-and-stories/speech/triple-planetary-crisis-forging-new-relationship-between-people-and-earth>

A product with a human cost

18 million people work in the electronics manufacturing industry. Around another 49 million people directly work in the mining of the materials that go into our phones and other electronics, with another 135–270 million depending on mining indirectly as a form of livelihood.

Too often, our industry's poor reputation for how we treat people is well-deserved. Hazardous working conditions, child labor and extreme poverty haunt our supply chains. Worker complaints go unheard or are actively silenced. Long hours, low pay and high stress are industry hallmarks.

Rapid life cycles drive greenhouse gas emissions and e-waste

By 2040 the information and communications technology (ICT) industry is expected to be responsible for 14% of the global carbon footprint. The impact of smartphones alone contributed 11% of ICT emissions in 2020. Most of those emissions are caused by the raw material extraction, processing and production that go into making a new phone. In 2022, more than 1.2 billion smartphones were sold. Seventy-five kilograms of resources were used for the production of each one of them. And their life expectancy? Around 2.7 years. With so few phones sent for proper recycling, that's creating an avalanche of electronic waste with serious pollution and health impacts.

Driving faster toward the cliff

Negative environmental impacts are accelerating in large part due to widespread and unsustainable production and consumption habits. Global material use is projected to more than double to 190 billion tonnes (from 92 billion), while greenhouse gas emissions could increase by 43% by 2060. The contributions of the phone industry to these trends is acute. Our sector actively encourages the very consumption patterns at the root of the problem. Indeed, they are core to the business models of many companies that count on their phones lasting less than three years.

But Fairphone shows that there is another way.

² [International Labour Organisation](#)
³ [2020 State of the Artisanal and Small-Scale Mining Sector](#)
⁴ [IndustriALL Mining and DGOJP](#)
⁵ [2020 State of the Artisanal and Small-Scale Mining Sector](#)
⁶ (Belkhir and Elmeligi, 2018)
⁷ <https://www.idc.com/getdoc.jsp?containerId=prUS49927022>
⁸ <https://www.verbraucherzentrale.nrw/wissen/digitale-welt/mobilfunk-und-festnetz/oekologischer-rucksack-11539>
⁹ https://www.afnum.fr/wp-content/uploads/2019/11/2019_EtudeTelephonesPortablesFR_Final_Rev.pdf
¹⁰ UNEP: [Global resources outlook 2019](#)

1.1 Our path to solutions

In 2013, Fairphone was founded with a clear mission: to establish a viable market for ethical electronics, thereby motivating the entire industry to act more responsibly. Over the years, we have grown through many forms, from an awareness raising campaign, to crowdfunding darling, to provocative outsider, to profitable pioneer — all while remaining laser-focused on our goal to prove that fairness is good for business, people and planet.

We take a holistic approach to addressing the problems of the electronics industry, driving positive change in three key ways:

- 1. We research and raise awareness.** By uncovering and transparently communicating about the complex supply chains of electronic products, we are able to inform a wide audience about issues facing the industry.
- 2. We innovate scalable solutions.** Through both incremental and dramatic changes in the way we make — and encourage people to use — our products compared to a more traditional smartphone company, we prove that it's possible to make more ethical business choices while still being a commercial success.
- 3. We motivate the industry.** Fairphone practices a fairer business model that we demonstrate and spread throughout our sector by creating strategic partnerships with key industry actors. This helps to motivate the electronics industry to challenge the “business as usual” approach and make caring for people and planet an expectation rather than an exception.

This is Fairphone's “theory of change”. We apply these ideas to four key impact areas where they have the greatest potential for maximum impact:

- **Longevity:** creating products that last
- **E-waste:** take-back, reuse and recycling
- **Fair materials:** choosing fairer materials
- **Fair factories:** decent work in manufacturing

From the mines where raw materials are extracted, to the factories' assembly lines, to the user experience of a Fairphone customer, we are always mindful of Fairphone's impact, good and bad. To ensure positive progress toward a fairer and more sustainable electronics industry, we monitor and measure the impact of our efforts.

While, of course, we follow industry and government best practices for auditing and monitoring our supply chain, we make it a point of pride to go further. Much further.

We ask ourselves where we as a company and a community can have the greatest impact; how we can reduce the environmental harm of our product, improve the lives of those who make it and the materials in it, and convince others to do the same. We set ambitious goals for ways to deliver that impact, and measure our progress each year against a set of Key Performance Indicators (KPIs).

2

Key Performance Indicators

It was our ninth year in the game, and we wanted to push ourselves and our business model even further. In the electronics industry, even a seemingly minor change can lead to significant disruption in the world's antiquated production models. That's why we think it's so important to openly examine and transparently share our KPI results; the ambition of the targets we set and met this year show that change is possible and worth pursuing.

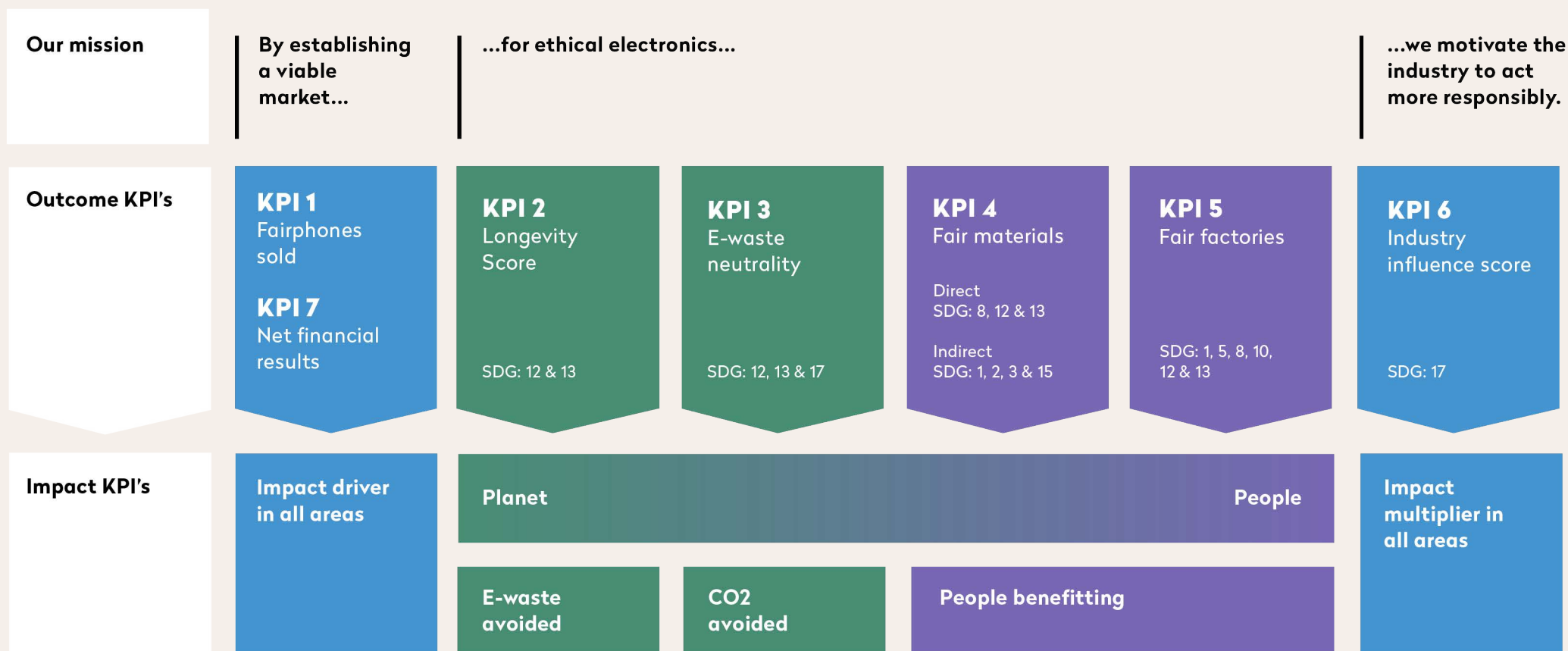
We measure Fairphone's overall impact based on [six outcome KPIs](#) and [three impact KPIs](#). To verify the credibility of our KPI results, they have been externally and independently assured by [ERM CVS](#).

2.1 KPIs and Sustainable Development Goals

We like to think of the United Nations' Sustainable Development Goals as a blueprint for a fairer future. Our KPIs directly — and indirectly — align with these goals, by minimizing the negative impact of our products, maximizing their positive contributions, and motivating our industry peers to act in more socially and environmentally responsible ways. Let's not sugarcoat it: achieving these goals is (and will continue to be) hard work. Fairphone alone will never change the world, and the change we hope to catalyze won't happen overnight. But every year since our founding in 2013, we have made progress worth celebrating. Step by step, every advance brings us closer to our vision of a fairer world. In 2022 we made progress toward every one of our goals in every area we measure, and we're proud to share the results of our efforts with you here.



We selected Key Performance Indicators that are core to our mission and impact (KPIs)



2.2 2022 KPI overview

KPI Name	Unit of measure	Result 2022	Target 2022	Target 2023
Outcome KPI				
KPI 1: Fairphones sold	Number of Fairphone 3, 3+ and 4 sold in 2022 via direct and indirect sales	115,681	168,000	235,000
KPI 2: Longevity score	Expected lifetime in years of activated FP3/+ and FP4	5.5	4.5	4.5
KPI 3: E-waste neutrality	% of electronic end-of-use products taken back vs. new FP4 and FP4 modules sold	100%	100%	100%
KPI 4: Fair materials	Average % of 14 focus materials sustainably sourced	40%	40%	70%
KPI 5: Fair factories	% of strategic suppliers who demonstrate improvements or high maturity	63%	50%	50%
KPI 6: Industry influence score	Number of points scored on industry players that adopt/apply one of Fairphone's Thought Leadership solutions (cumulative score 2017-2022)	19 (60)	8	50
KPI 7: Net financial results	Financials (€ '000)	44	3,044	-1,336*
Impact KPI				
E-waste avoided	Tons of e-waste avoided	15	N/A	N/A
CO2 avoided	Tons of CO2e avoided	999	N/A	N/A
People benefiting	Additional number of people benefitting from Fairphone interventions and programs (cumulative number 2017-2022)	28,926 (83,803)	N/A	N/A

NOTES

- Our KPIs have three year cycles and the current one is from 2021 - 2023.
- KPI 2 through KPI 6, as well as our KPIs E-waste avoided CO2e avoided and People benefiting, are part of the impact assurance statement from ERM CVS.
- For more detailed KPI description, see the [appendix 5: Basis of Reporting](#)
- KPI 1 and KPI 7 are part of the yearly financial audit.

*negative net result target in line with our strategy to invest heavily in raising our brand awareness, leading to temporary financial losses



3

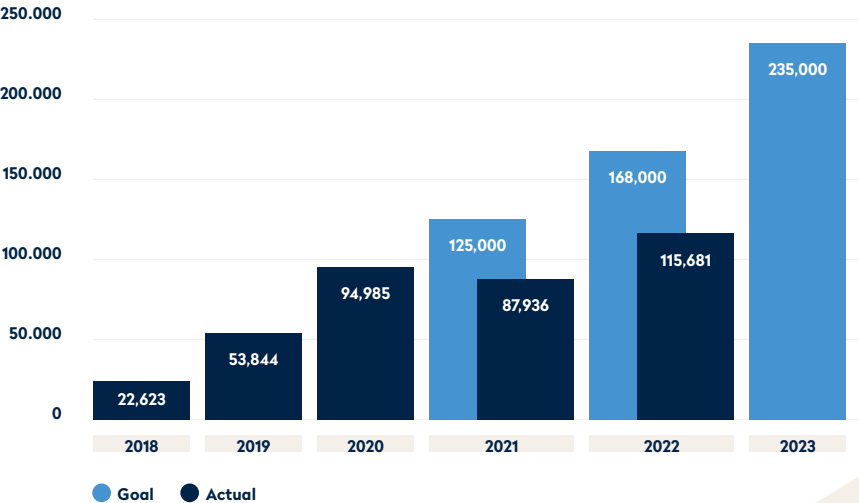
Our progress on impact Outcome KPIs

We invite you to explore our 2022 results in the following pages, and we encourage you to view this report as an invitation to join us in our mission to make a fairer future. Consumers want more sustainable and ethical products. We want more companies to adopt our methods, join us in strategic partnerships and grown the ethical electronics marketplace. This is a win/win/win scenario — now let's get down to the nitty-gritty of how we work to make it happen.

3.1 Establish a market for ethical phones

KPI 1: FAIRPHONES SOLD

Number of Fairphone 3, 3+ and 4 sold in 2022 via direct and indirect sales: 115.681



The challenge

Fairphone was founded to prove two points to a skeptical industry. First, that it was possible to make a more ethical phone, and second, that people would consciously choose to purchase it. Our first KPI is our most basic way of seeing if we’re effectively making those points: the number of phones we sell.

Our approach

By making our phones in a fairer, more sustainable way we are proving that solutions exist. By selling more of them, we prove there’s a demand for products which reflect the values that we champion. We want our sales figures to be an invitation to the rest of the industry — to realize that there’s a massive and growing market for products that make sustainability and better working conditions a part of their value offer.

Results

In 2022, we sold more Fairphones than in any single year in our history: 115,681 of them, to be exact. And while that was 52,000 units short of our goal for the year, we’re proud to have increased sales 32.4% compared to 2021 in spite of an economic slump and continuing COVID-19-related supply chain disruptions.

59% of our sales were through partners and 41% — slightly up from 39% in 2021 — came via our website. Several initiatives on fairphone.com contributed to this growth: we improved the accessibility and speed of our site (and laid the groundwork for some important redesign projects in 2023); we lowered the purchasing threshold for our customers by launching a split

payments solution in our web shop; we piloted several incentives for customers to choose more sustainable options, such as periodic offers on free shipping to postal access points.

We also continued to grow our indirect sales channels in 2022. We entered partnerships with **several new operators and sellers throughout Europe**, broadening our store presence to **more than 3,500 stores** across the region. Fairphone's B2B (business-to-business) customer segment also grew, and after receiving the **Android Enterprise Recommended Certification**, we secured a number of important enterprise deals.

In 2022, we also launched our most circular proposition yet: a "product-as-a-service" called Fairphone Easy, which allows consumers to lease our phones by paying a monthly fee instead of buying them; [see KPI 2, Longevity](#), for more information. While our current pilot in the Netherlands has had a relatively low uptake so far, it has generated important insights to help us optimize our offer.

Germany continues to be our biggest market, responsible for 41% of our sales, followed by France at 15%. Sales in the Netherlands increased as a percentage of all sales from 9% in 2021 to 14% in 2022.

And, in an exciting first for Fairphone, we ventured beyond the European market to Taiwan. We launched sales there with an established local operator, and in 2023 we will build on that foundation to further explore the market and grow local relationships. To achieve our ambitious sales targets for next year, we will seriously up our investments in brand and marketing with the aim to reach a higher brand awareness in our key markets.

Our results

	Volume	% of total
Indirect Sales	68,655	59%
FP3(+)	6,477	6%
FP4 (6/128)	28,097	24%
Direct Sales	47,626	41%
FP3	483	0%
FP3+	4,965	4%
FP4 (6/128)	13,008	11%
FP4 (8/256)	29,170	25%
Total Volume Phones	115,681	100%

Regional sales split

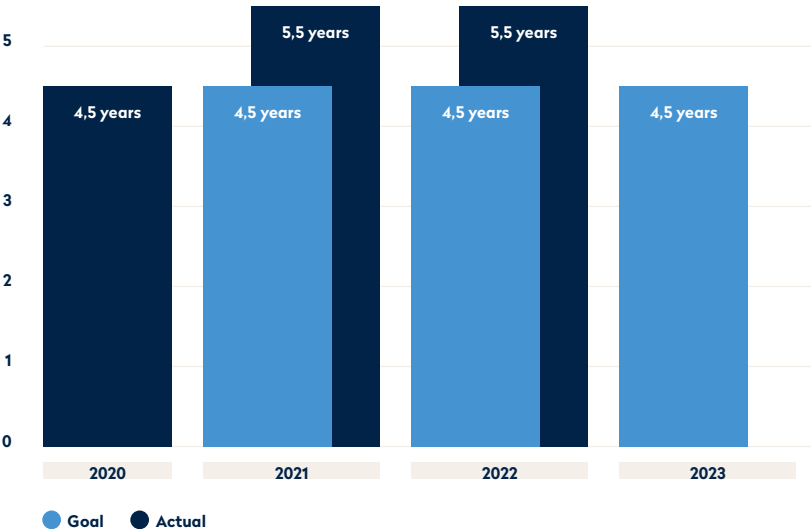
	Phones sold	Revenue x1,000	Percent of Sales
Focus markets (Germany, France, The Netherlands, UK)	88,171	44,872	77%
Other markets	27,510	14,126	23%
Total 2022	115,681	58,998	

3.2 Longevity: creating products that last

KPI 2: LONGEVITY SCORE



Expected lifetime in years of activated Fairphone 3, 3+ and Fairphone 4



The challenge

Each Fairphone model undergoes a rigorous Life Cycle Assessment to evaluate the environmental impact of the phone’s manufacture, transport, use and disposal. These assessments make it clear that a smartphone’s primary environmental and climate impact is during the production phase — it accounts for 75% of the Fairphone 4’s carbon footprint, for example. The implication? To reduce negative impact, we need to reduce the number of phones being produced.

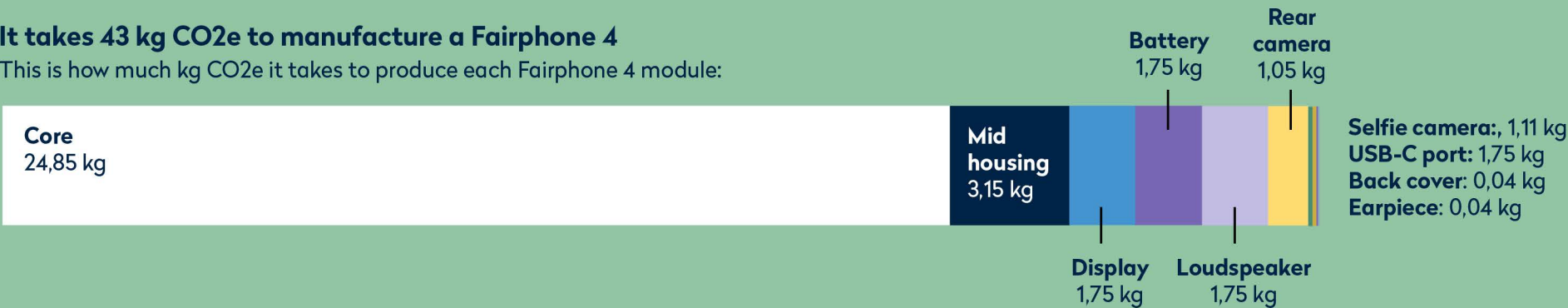
Simply put: someone who goes through two phones in five years will cause close to twice the impact on global warming compared to someone who uses only one. With the current average lifespan of a smartphone being only 2.7 years, keeping a phone for at least five years — our goal for the Fairphone 4’s life span — reduces that yearly impact by around 30%. Only by prolonging the lifespan of the products we already own can we notably reduce the material use and greenhouse gas emissions connected to smartphones.

What is a Longevity Score?

Fairphone’s Longevity Score calculates the **average lifespan of the Fairphone 3, Fairphone 3+ and Fairphone 4 by combining their measured actual lifetime with their expected lifetime**. The information on “expected” lifetime is collected from Fairphone users via a survey. Every six months, we ask them to estimate how long they plan to keep using their phone based on their experience of its performance and Fairphone’s support system.

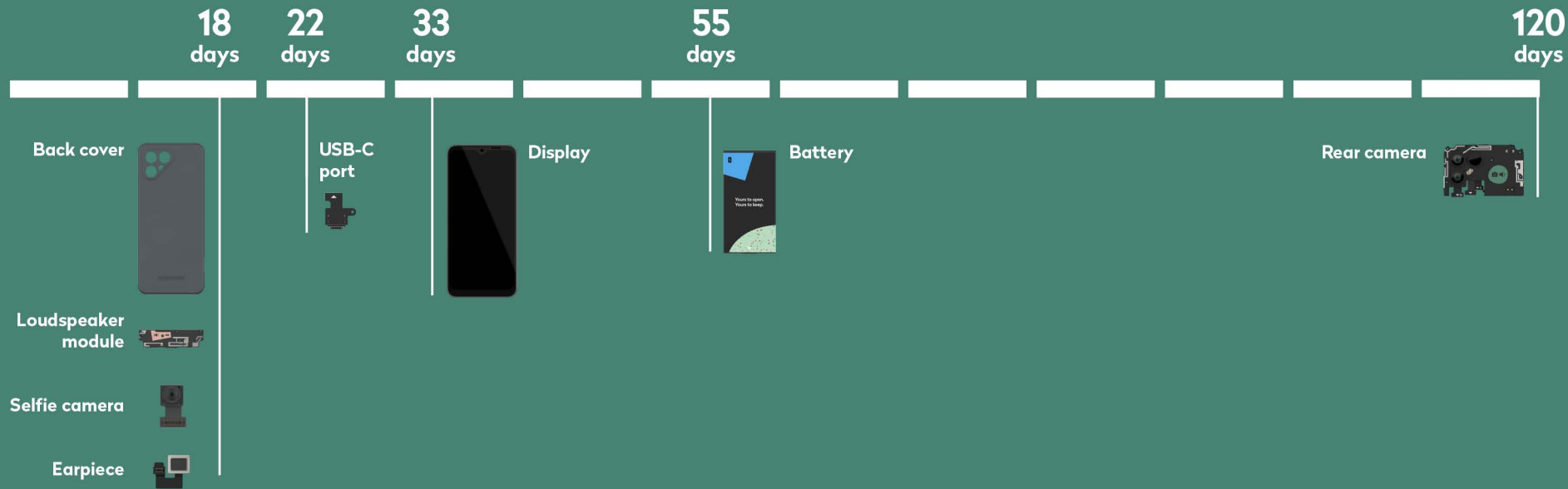
Longevity: Why repairing is the key to decrease a phone’s impact on climate change

It takes 43 kg CO2e to manufacture a Fairphone 4
This is how much kg CO2e it takes to produce each Fairphone 4 module:



Spare parts emission pay back time

Days you need to use your Fairphone 4 after replacing a module to compensate the repair emissions by using your phone (= the other parts, especially the core) for longer. Yes, it is that short!



Our approach

INCENTIVIZING LONGER USAGE OF THE FAIRPHONE 4

- 5-year manufacturer warranty
- Long-term software support
- Long-lasting design: reliable (endures rigorous drop testing, resistant to water drops and dust) and easy repair through modular design
- Affordable spare parts sold in our web shop
- Free and public repair information
- Printed circuit board schemes published for board-level repairs

Fairphone works to keep our devices in use for as long as possible through both hardware and software innovation, while encouraging other smartphone manufacturers to do the same.

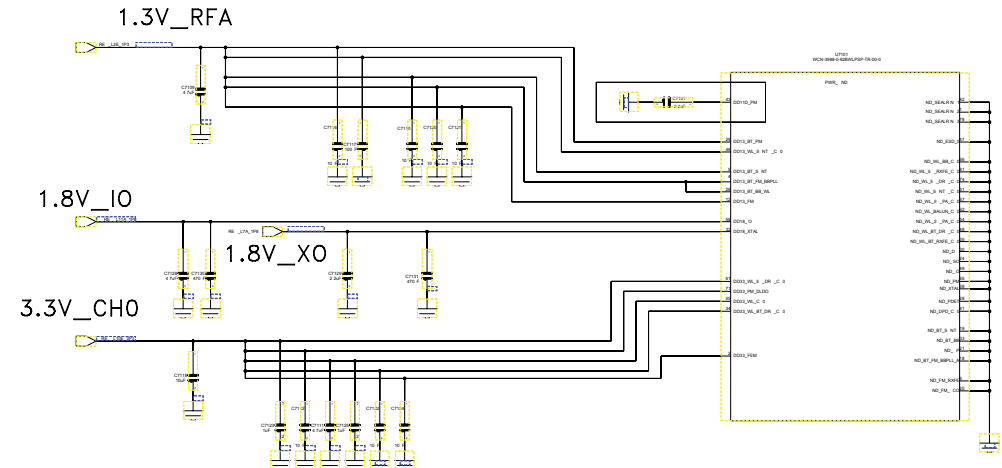
We challenge the current “make-use-dispose” system with longer-lasting design emphasizing modularity, which allows for reparability and refurbishment, decreasing the overall environmental impact of our products.

Repairing a Fairphone saves the greenhouse gas emissions of producing an entirely new phone, but in Europe, only 40% of smartphone users even consider repair — of which only half actually opt for repair.¹¹ Convenience and the cost of repair when compared to a new phone are the key factors behind this decision.¹²

That’s why Fairphone facilitates DIY (do-it-yourself) and affordable professional repair through the availability of reasonably priced spare parts. We provide free, public repair information and assistance through Fairphone’s website and community pages.

In 2022, we became the first (and so far, only) smartphone manufacturer to publish [the schematic of the printed circuit board of the Fairphone 4](#). This information provides professional repairers and repair enthusiasts with the most detailed information possible before they get to work. The uber-techies among our Fairphone community truly loved this. It’s a whole new level in the “If you can’t open it, you don’t own it” story.

And it’s a transparency that empowers them to not only know more about what’s going on under the hood, but to improve the tips and tricks, diagnostics and repair advice they provide in the [online community forum](#). All of that helps further the Fairphone mission. We’re extremely grateful to our community of users for the peer-to-peer support they provide, and to the [Fairphone Angels](#) who volunteer to share their knowledge. They keep our phones alive longer and make them more fun and efficient to use.



¹¹ Magnier, L., & Mugge, R. (2022). Replaced too soon? An exploration of Western European consumers' replacement of electronic products. Resources, Conservation and Recycling, 185, 106448. <https://www.sciencedirect.com/science/article/pii/S0921344922002919>

¹² Jaeger-Erben, M., Frick, V. & Hipp, T. (2021). Why do users (not) repair their devices? A study of the predictors of repair practices. Journal of Cleaner Production. Volume 286, 125382.10.1016/j.jclepro.2020.125382

Incentivizing long lifespans with Fairphone Easy

In Fairphone Easy's circular business model, the user never has to worry: we take care of the repairs, refurbishment and responsible recycling, and the user is never without a phone. For every year the phone stays damage free, we'll apply an increasing monthly discount, rewarding users for taking part in our mission for smartphone longevity.



Prolonging lifespans with Fairphone Easy

How prolonging a smartphone lifespan can impact greenhouse gas emissions and electronic waste.

Average smartphone lifetime of 2.7 years

Only 30% of consumers consider repair of malfunctioning phones.
Only 20% of broken phones get recycled responsibly.

Goal: Lifetime of minimum 5 years

With every Fairphone we can avoid: 21 kg CO₂e and 135 g of electronic waste.
Based on production emissions (35 kg CO₂e) and weight (225 g) of Fairphone 4.

The User



New Fairphone 4



Phone in use



If malfunctioning

Never without a phone, direct replacement



Good as new



Phone in use



If malfunctioning

Fairphone's service, no hassle for the user



Returned phone



Refurbishment



Parts that cannot be reused are recycled responsibly



100% of phones that cannot get repaired are recycled responsibly



The process of returning can happen again and it's not automatically the case that the phone goes to recycling once it is malfunctioning the second time

In our efforts to remove as many barriers to repair as we can, we **also offer a 5-year warranty for the Fairphone 4**. Still, we can't force a broken phone to be repaired — unless this phone is our property. This is why an important new part of our approach is [Fairphone Easy](#), launched as a pilot in the Netherlands in 2022. This is a **smartphone subscription service** where we take care of your phone for you; users don't need to worry about replacing their phone or fixing it if something breaks. You can find more information [on this page](#).

Hardware longevity, however, is pointless without safe, functional software support. We proudly **pledge software support for at least five years** — even when maintenance and updates are likely to fall entirely on us and our community for several years. Open-source operating systems can also prolong the lifetime of smartphones. **We nurture open-source communities and have a partnership with the [/e/Foundation](#).**

To achieve our target to maintain our Longevity Score at a minimum 4.5 years in 2023, we will intensify our research into the reasons why users stop using their Fairphone and will take measures to keep them enthusiastic about their current phone.

Results

We didn't just hit our Longevity Score target in 2022 — we exceeded it. **We aimed for 4.5 years and can proudly report a result of 5.5 years for Fairphone 3, Fairphone 3+ and Fairphone 4**. This score is a strong indicator of customer trust in our phones when it comes to quality, repairability, software updates, and overall support.

The surveyed Fairphone users who are still actively using their Fairphones (77% of all activated Fairphone 3, Fairphone 3+ and Fairphone 4 devices) expect to use their Fairphones for an average

of 6.8 years in total, including the time they have used their phone so far, contributing positively to this score. The customers not actively using their device anymore are lowering the score by halting their use of their Fairphone device after 1.2 years and not having any additional lifetime expectations.

The score accounts for all devices with Fairphone OS (prototypes, demo phones at sales partners' shops and phones with alternative OS are excluded), which are 94% of all Fairphone 3, Fairphone 3+ and Fairphone 4 devices that have been activated.

As stated above, we know that some users of even the most repairable phones will not always opt for repair when their phone runs into issues. This is why we **launched our smartphone subscription service Fairphone Easy in June 2022**, taking control over the lifespan of our Fairphone 4 phones.

In 2022, the **New Life Edition** product category gave more than 1,200 refurbished Fairphone 3 and Fairphone 3+ a second life, increasing their overall lifespan. We offered them in our webshop as a cheaper and more environmentally friendly alternative to a brand-new product.

And what does it actually look like when we meet (and surpass!) our longevity goals? In 2022, the Fairphone 2 received an update to Android 10 which will lead [Fairphone 2 toward a total of 7.3 years of software support](#) — another exciting industry first!

For more on how our longevity goals play into quantifiable impacts, see [chapter 4.1.1](#) on e-waste and CO2 avoided.

Longevity score

Measuring an average product lifespan is not possible while the product is still being used. Therefore, our Longevity Score predicts the average lifespan of Fairphone 3(+) and 4 by combining their measured actual lifetime with their expected additional lifetime.



Longevity score 2022 Fairphone 3(+) & Fairphone 4

Total activated phones
Fairphone 3(+) & Fairphone 4



77.5%
Still active



22.5%
Inactive

Measured actual lifetime



Active phones **1.40 years**
Inactive phones **1.20 years**

1.40 years x 77.5%
1.20 years x 22.5%
1.4 years

Expected additional lifetime



Active phones **5.35 years**
Inactive phones **0 years**

5.35 years x 77.5%
0 years x 22.5%
4.1 years

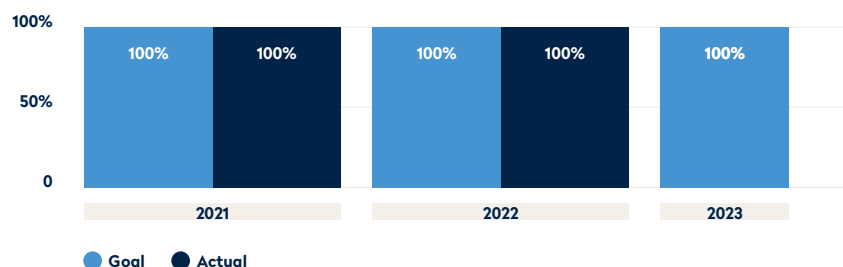
5.5 years

3.3 Take-back, reuse and recycling

KPI 3: E-WASTE NEUTRALITY



E-waste recovered vs. Fairphone 4s sold



Fairphone takes responsibility for the electronic waste created by our products. We measure the amount of electronic end-of-use products we collect for reuse and recycling, compared to the amount of future e-waste we put on the market by selling Fairphone 4 and its spare parts.

The challenge

Globally, an annual average of 7.3 kg of e-waste is produced per person. E-waste is the world's fastest growing waste stream, and it is expected to double annually until 2050¹³. We must change how we purchase, use and dispose of electronics.

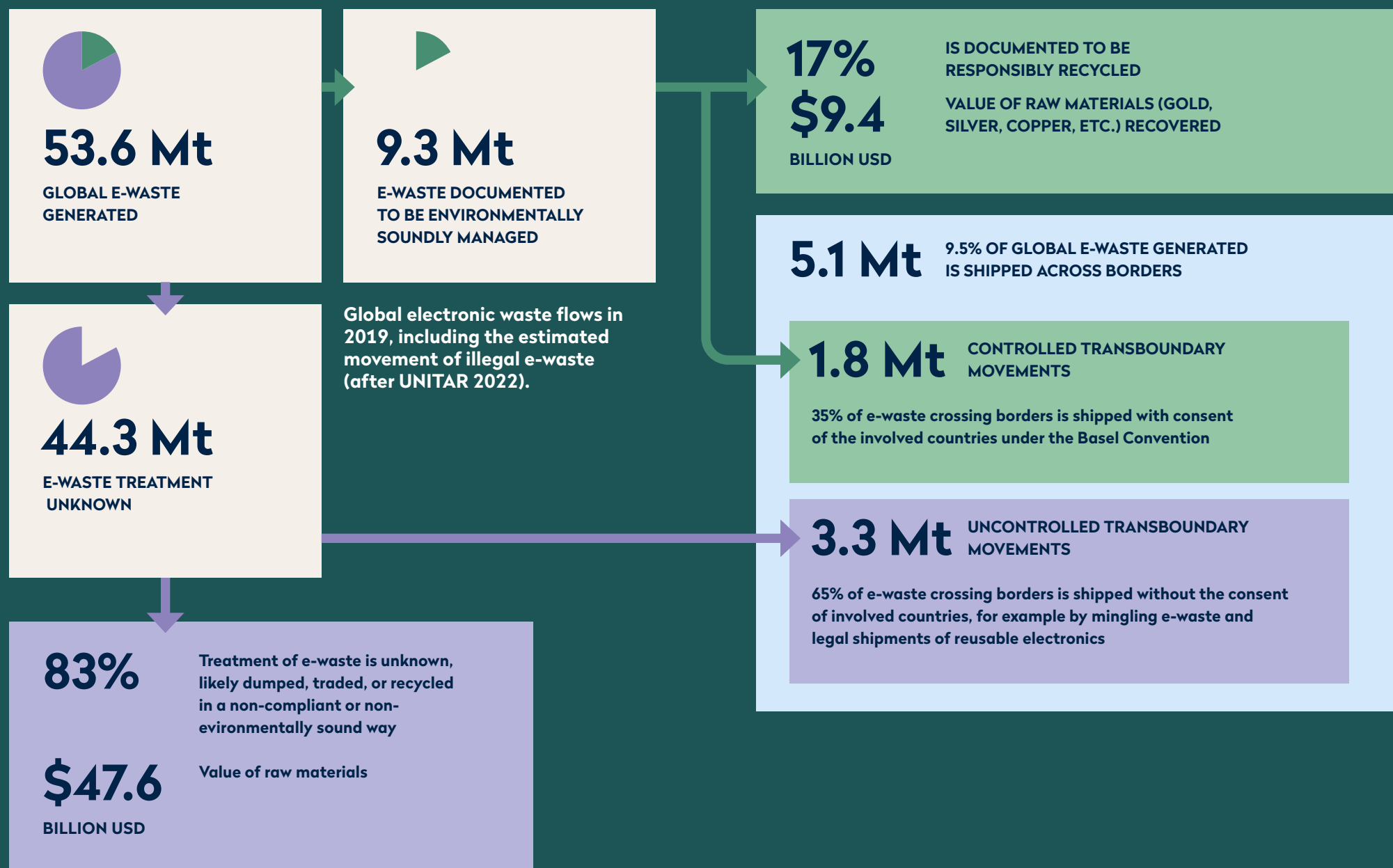
On average, consumers replace their phone every 2.7 years. In Europe alone, it's estimated that around 700 million phones (many of which still work¹⁴) are sitting unused, in drawers. This is more than three times the yearly European smartphone sales; giving those still-working phones a new life could avoid the production — and associated environmental impacts — of an entirely new phone. Freeing up materials from end-of-life phones through recycling would enable us to produce more phones with secondary raw materials.

Worldwide, approximately 3.3 million tons of electronic waste (which is still only 6% of total electronic waste!) was illegally exported to countries with insufficient formal recycling systems in 2019 alone; the Global South is treated like a graveyard for the Global North's luxury products.¹⁵ In these countries, landfilled e-waste and informal recycling causes health and environmental hazards, while resources are inefficiently recovered — if at all. By properly recycling e-waste, we can avoid risks for people and planet, preserve resources and reduce the demand for virgin materials.

¹³ C.P. Baldé, E. D'Angelo, V. Luda O. Deubzer, and R. Kuehr (2022), Global Transboundary E-waste Flows Monitor - 2022, United Nations Institute for Training and Research (UNITAR), Bonn, Germany https://ewastemonitor.info/wp-content/uploads/2022/06/Global-TBM_webversion_june_2_pages.pdf

¹⁴ European Economic and Social Committee, Rizos, V., Bryhn, J., Alessi, M., et al., Identifying the impact of the circular economy on the fast-moving consumer goods industry: opportunities and challenges for business, workers and consumers : mobile phones as an example, Publications Office, 2019, <https://data.europa.eu/doi/10.2864/775626>

¹⁵ C.P. Baldé, E. D'Angelo, V. Luda O. Deubzer, and R. Kuehr (2022), Global Transboundary E-waste Flows Monitor - 2022, United Nations Institute for Training and Research (UNITAR), Bonn, Germany https://ewastemonitor.info/wp-content/uploads/2022/06/Global-TBM_webversion_june_2_pages.pdf



Our approach

MAXIMIZING RESOURCE USE AND MINIMIZING WASTE

- Device longevity and repairability
- Reuse and refurbishment
- Electronic waste neutral
- Incentivizing return of old devices
- Fairphone Easy subscription service
- Collecting phones to recycle responsibly and to avoid informal recycling

One aspect of this is device longevity, [as discussed in KPI 2](#). But when it has reached its end-of-life, we also want our phones and their modules to be **reused and/or refurbished**. Devices shouldn't be sent for recycling until options for reuse and refurbishment are no longer feasible.

We take **responsibility for the e-waste** produced by Fairphone. We have proudly made the Fairphone 4 “**electronic waste neutral**”. This means that for every Fairphone 4 and related modules we sell, another end-of-life phone or the same amount of e-waste is either reused or recycled through Fairphone's efforts. We achieve this through programs and projects in our EU market as well as in countries which suffer from illegal waste exports from the European continent.

Our e-waste neutrality promise was a first in the smartphone industry and perfectly encapsulates our attitude toward inspiring the industry — we're hopeful that more and more companies will pick up on the idea!

We feel that a business should put genuine effort into raising awareness among its customers about the roles we can all play in conserving environmental resources. We **incentivize the return of old devices** through our European take-back program, and either refurbish them for reuse or send them for proper recycling. The

The Fairphone Easy subscription service is another way we are meeting the challenge of collecting phones after use, as Fairphone remains the owner of the device.

We also collect and responsibly recycle phones from countries with insufficient recycling infrastructure. With every one of these phones properly recycled, we avoid informal recycling, with its connected negative health and environmental consequences, and preserve resources which are otherwise lost.

Results

We achieved **our goal of making all Fairphone 4 devices and modules e-waste neutral by collecting electronic end-of-use products that equal 100% of units sold in 2022**. Our True Wireless Stereo Earbuds are also electronic waste neutral, but are not included in the calculations for this KPI in order to maintain comparability with previous years' results. In total we collected 9.6 tons of e-waste. In weight, 63% of the e-waste stems from different Fairphone-owned take-back programs on the EU market (EU-FP) while 37% was collected by our partners [Closing the Loop](#) and ReCell in Africa. Additionally, we account for the take-back financed through Europe's Waste Electrical and Electronic Equipment (WEEE) Directive fee which we are legally bound to pay in our European markets.

We want to increase our social impact in countries without sufficient recycling infrastructure and ensure that we contribute positively to the livelihoods of local communities. We therefore conducted a **study on urban mining** in 2022 and investigated how we can integrate recovered materials in our supply chain, which you can read [about here](#).

We're always looking for innovative ways to collect e-waste which escapes the national collection systems, so we organized

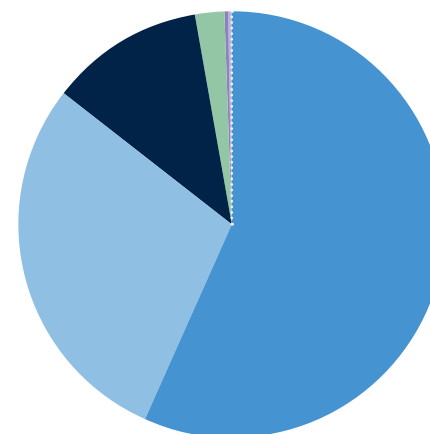
our first **two Urban Mining Workshops with NOWA**: one for the global sustainability team at Heineken, and another for children of Fairphone employees. During these team building experiences, participants learned about the problem of e-waste, disassembled smartphones and went gold-digging in their components. We conducted a small-scale e-waste collection competition and received 40 kg of electronic waste.

A company can only make its products more sustainable if it understands the larger system the product is part of. We therefore conducted research into recycling options and improvements for smartphones. Even when properly recycled according to EU standards, only about 30% of the weight of materials contained in a smartphone can be recovered by recycling. Our first [recyclability study on the Fairphone 2](#) revealed that smartphone modularity leads to a higher recovery if the phone is disassembled and the different modules are supplied to the most suitable recycling processes according to their material content. In 2022 we **finalized our recycling study of the Fairphone 3** in collaboration with [MARAS](#). It turned out that the modular Fairphone 3 design allows for a 50–60% recovery rate of quality materials that could directly be used for smartphone production again.

Fairphone aims to inspire both the industry and legislators with clear examples of how things can be done differently in the electronics industry. In light of future EU legislation [on product passports to improve transparency in supply chains](#), we are proud to have **won funding from the European Commission for the next four years** to work in partnership with 15 other organizations on the project [“Digital assets and tools for Circular value chains and manufacturing products”](#) (aka DaCapo).



Funded by
the European Union

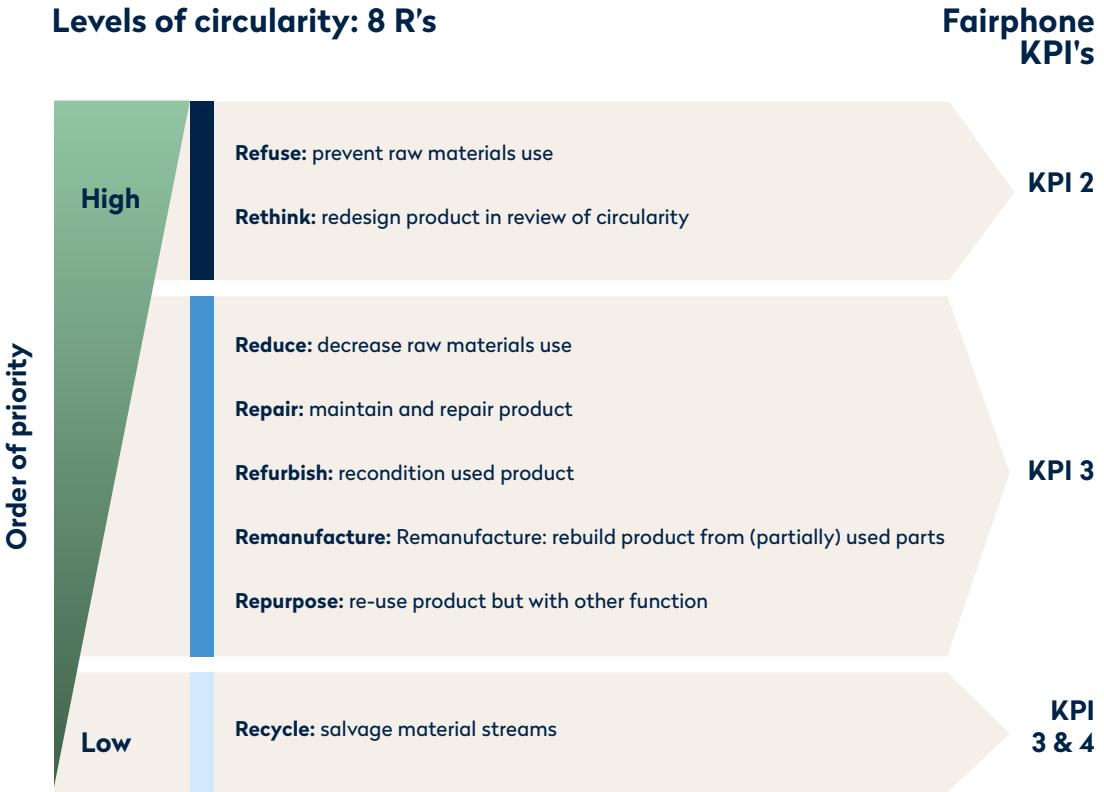
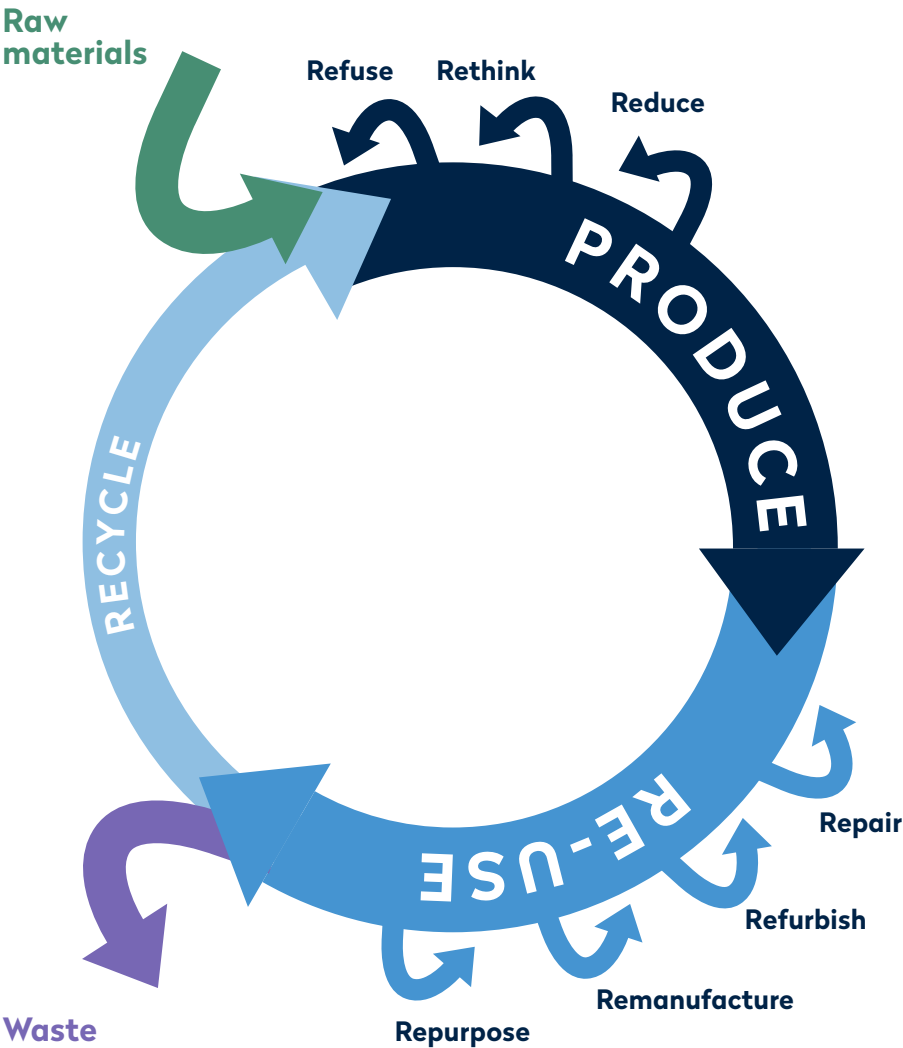


Take back split 2022 (in phone-equivalent)

- 56.8% Africa - Closing the Loop phone compensations
- 28.9% Africa - ReCell project
- 11.7% EU - Take-back financed by WEEE fee
- 2.3% EU-FP - Reuse and Recycle Program
- 0.2% EU-FP - Urban Mining Workshop
- 0.1% EU-FP - Fairphone Easy
- <0.1% EU-FP - Module Take-Back Program

Priorities for a circular economy

Fairphone works to keep materials at their highest value for as long as possible. The priorities to achieve this are set out in the levels of circularity and captured in Fairphone's company KPIs.

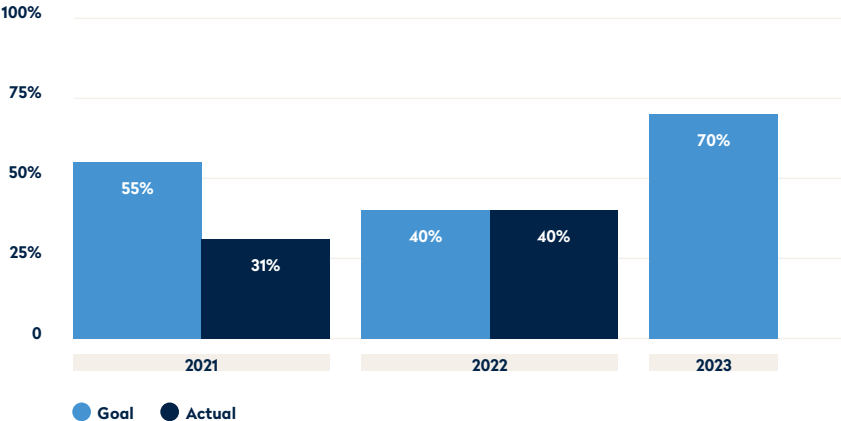


3.4 Choosing fairer materials

KPI 4: FAIR MATERIALS



Choosing fairer materials
Average % of 14 focus materials sustainably sourced



Average % of sustainably sourced focus materials

This KPI reflects the percentage of our 14 focus materials (in weight, measured separately) which is sustainably sourced for the Fairphone 4, meaning they are sourced from, or support, fairer mines or are (pre- and post-consumer) recycled. These 14 have our focus because of their highest urgency & potential to bring down negative and increase positive impact.

The challenge

Smartphones contain a vast number of different materials. Each one has been on a global journey, with every step — extraction, processing, transport, refining, component manufacturing and final assembly — supporting the livelihoods of local workers and economies. The issue is that many of these materials and processes are associated with unsafe working conditions, health risks to local and indigenous communities, and environmental pollution. But global demand for products like batteries and energy storage devices is only growing with the green energy transition — one of the main reasons why demand for materials like cobalt, lithium, nickel and copper far outpaces supply and the pool of recycled materials is not large enough (yet) to relieve our need for virgin mined materials.

This is why Fairphone engages with local mines; many mineral-rich but economically poor regions can benefit more from mining, rather than mainly bearing negative social and environmental impacts. We support them in becoming more responsible and sustainable; only by working together in this way can we achieve a fair transition to a greener, circular economy.

Our approach

- 14 focus materials with greatest impact potential
- Mapping supply chain
- Investing in and collaborating with suppliers
- Supporting improvements
- Guided by our [Fair Sourcing Principles](#)
- Following our [Fair Materials Roadmap](#)

Fairphone works toward ensuring that these come from fair(er) mines or from recycled sources and create positive impact. This means tracking our supply chain and finding fairer sources and suppliers, developing ways of integrating these materials jointly with our suppliers and where we can't physically integrate, increase the fair supply and compensate for our material footprint. We proactively provide support and investment in creating fairer sources ourselves and in enabling our partners to act responsibly.

Our approach is rooted in engagement, collaboration and partnership, because we believe that this is the only way to create the systemic change we need in our sector. It's especially key that we engage with the most vulnerable and marginalized in our supply chains, such as artisanal and small-scale miners (ASM), and support them in improving practices, rather than turning away from them because they don't yet meet our requirements.

Ultimately, we want to ensure that the people playing a role in our supply chain are positively impacted by their participation and that the environment is protected. Fairphone is guided in these efforts by our [Fair Sourcing Principles](#), as well as our [Fair Materials Roadmap](#), which outline our goals and priorities for creating positive impact. Both of these documents are available publicly and we hope they can serve as an inspiration for others in our industry.

Results

In 2022, we achieved our target of 40% focus materials sourced fairly for the Fairphone 4, increasing from 31% last year.

Despite the ongoing pandemic-related challenges we faced with suppliers and supply chains, we developed deeper trust and engaged more frequently with our suppliers and partners, thanks to a growing Fair materials team internally. We integrated more recycled materials and took steps in enabling fairer supply of cobalt and gold.

Mined materials

GOLD

- In 2022 Fairphone became the first company to pilot Fairmined gold credits with the [Alliance for Responsible Mining](#). We did this to compensate for the amount of gold in our Fairphone 4 (representing 91% of gold use) and True Wireless Stereo Earbuds (representing 90% of gold use), which has not yet been sourced from certified sources. Fairphone bought Fairmined credits for an equivalent amount of gold; we paid a total premium of almost US\$20,000 to the miners' cooperative at the Fairmined-certified [La Gabriela mine](#) in Colombia, benefiting the miners and incentivizing the supply of Fairmined gold brought to the market.
- The mining cooperative of La Gabriela can now use these funds to strengthen the mining organization, increase workers' welfare, or for community impact projects. Within these parameters, they are considering conducting health and safety training or geological sampling to better plan their future mining and inform the renewal of their mining permit, and will deliver an investment plan to this effect in 2023.
- Additionally, we continue to integrate Fairtrade-certified gold into our supply chain (which currently represents 9% of our gold use for the Fairphone 4). We pay an equivalent to the Fairtrade Premium to the miners at Mine Macdesa and Mine Limata in Peru. In 2022, this totaled almost €3,000.

TIN

- In 2022 Fairphone participated in a coalition piloting unconditional cash transfers to miners' families in villages near iTSCI-certified mine sites in the Democratic Republic of the Congo (DRC).
- The goal is to directly improve incomes and living conditions, and to learn how this could be scaled in more mining regions. All residents of the village of Lutala receive a fixed monthly amount deposited to their individual mobile bank account, without any conditions on how this money should be spent.
- In [research](#) published in 2020, we found that the DRC had a gap between the incomes versus the needs of miner families working in tin, tantalum or tungsten mines. In 2022, we joined the project mentioned above, implemented by [Eight](#) and [IPIS](#), which is designed to address this gap. Fairphone specifically supports impact measurement, assessing how living conditions changed in relation to — for example — health, education, child labor, entrepreneurship and collective action.

COBALT

- In 2022 [the Fair Cobalt Alliance \(FCA\)](#) advanced its progress toward a more responsible ASM cobalt sector in the DRC. As co-founder of the coalition, together with [The Impact Facility](#) who runs FCA, we participated in a visit to the partner mine site in November 2022, where we witnessed the progress and challenges first-hand.
- Working conditions for these artisanal miners have improved, from on-site trained and equipped first aid safety captains, prominent safety guidelines, and the provision of personal protective equipment. There is still much to do, and the work of the FCA moving forward will be focused on structural improvements to the mine site's operations.
- The FCA's work to remediate and prevent child labor also continued in 2022. As the mine site is becoming more formalized, there are fewer cases of child labor observed. To address the risk that child laborers will move to surrounding mines, the FCA is now expanding the child remediation work to other sites. Three children are currently in the long-term remediation program,

where they are supported in continuing their education.

Families were enabled to pay school fees for 241 local children by participating in local savings and loans groups.

- The supply chain of ASM cobalt remains complex and opaque, though the DRC government is taking steps to improve this. Establishing a viable and responsible supply chain from mine to market will be a focus for 2023.

LITHIUM

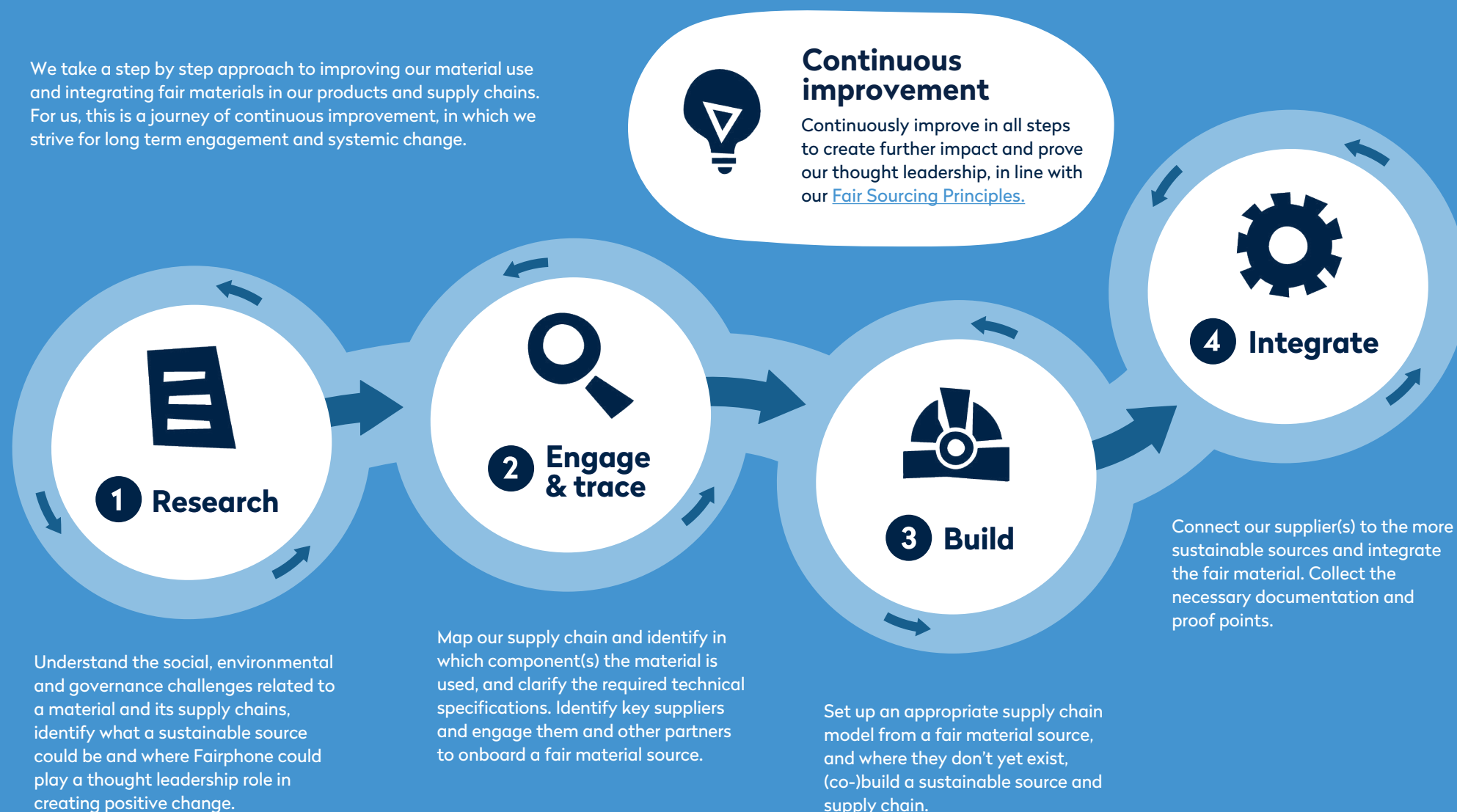
- The [Responsible Lithium Initiative](#), which we participate in, expanded its Multi-Stakeholder Partnership in the lithium extraction area in the Salar de Atacama in Chile during 2022. Lithium extraction in this region has been linked to negative impacts on waterways, ecosystems and indigenous communities. Currently, 22 organizations from indigenous communities, local civil society, academia, the local private sector, government and local mining companies are members in the roundtable discussions, where they collaborate to reach agreements and identify actions regarding the care of the ecosystem of the Salar de Atacama basin.
- The two lithium mine sites operating in the project area have also undergone [the Initiative for Responsible Mining Assurance's \(IRMA\) audit](#) — the first lithium mines globally to do so. This is the most comprehensive certification for large-scale mining, and we have been working to integrate lithium from these mines into Fairphone's supply chain. We hope to achieve this in 2023.

URBAN MINING — INFORMAL POST-CONSUMER RECYCLING

- In 2022 we conducted further research on the e-waste and informal recycling supply chain (also called "urban mining") in Ghana, in partnership with [Polestar](#), [Closing the Loop](#), [TDi Sustainability](#) and [Mountain Research Institute](#), with funding from [IMVO](#).
- In Ghana alone, around 122,000-200,000 people depend fully or partially on informal e-waste recycling, collection or repairs. With our research, we have laid the foundation for a future program to improve working conditions and environmental impacts. We aim to implement this in 2023.

Our path to fairer materials

We take a step by step approach to improving our material use and integrating fair materials in our products and supply chains. For us, this is a journey of continuous improvement, in which we strive for long term engagement and systemic change.



Focus materials: The steps we took in 2022



Research

Engage
& trace

Build



Integrate

Continuous
Improvement

Steps made before 2022



(Additional) steps made in 2022

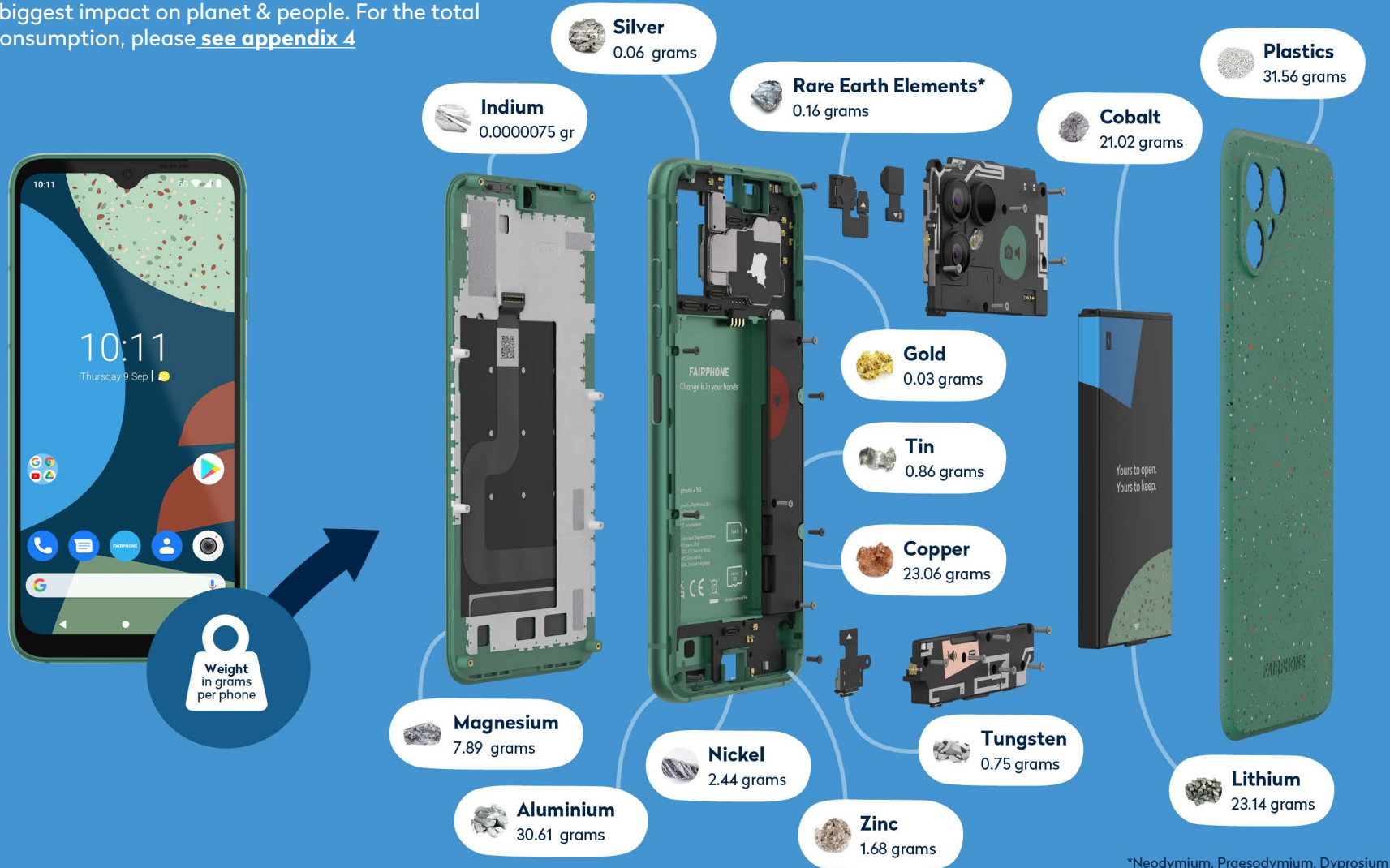


Step yet to be made

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

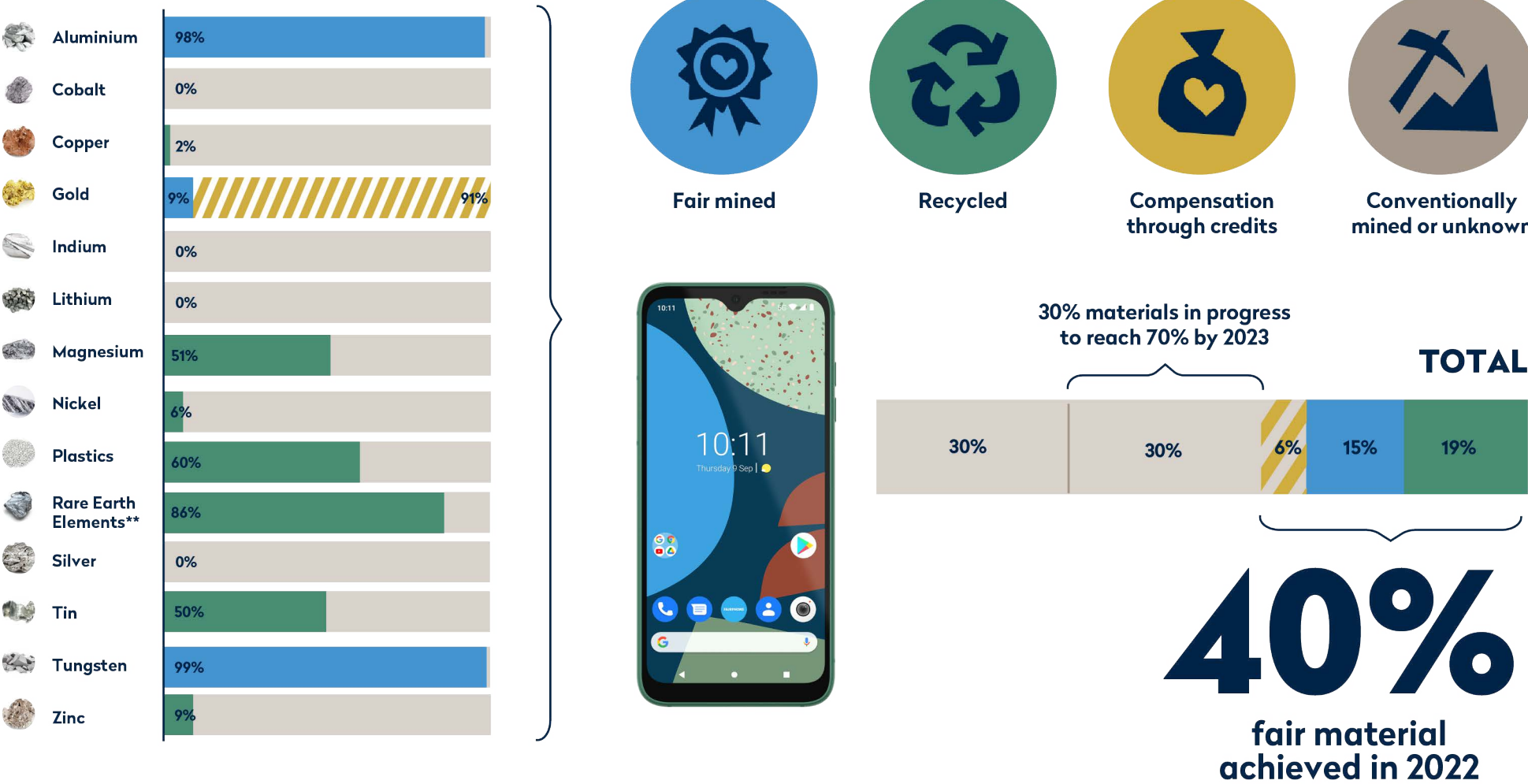
Our focus materials

To build the Fairphone 4 we use over 50 different materials. We selected 14 focus materials based on where we can make the biggest impact on planet & people. For the total material consumption, please [see appendix 4](#)



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, Praesodmium, Dyprosium

Fairmined Credit System



Fairmined credits

Each Fairmined credit represents one gram of gold extracted according to the Fairmined standard and an equivalent premium is paid to the mining cooperative. The premium payment is decoupled from the sale of the gold, meaning that the certified gold is sold on the local market (without the premium) and is not physically integrated into Fairphone's supply chain.

This model lets us immediately create a direct impact for miners while still working on integrating certified gold into our supply chain (which requires lots of time and resources to track and document the gold through complex and volatile electronics supply chains, via many supply chain tiers, actors and phone components).

The miners can sell their gold locally, which saves them the administrative burden and costs related to logistics, export and refining. This means they can get faster — and sometimes better — payment conditions. At the same time, they still receive the premium as a reward for their responsible, certified production, independently of where the gold is sold.

Recycled materials

In 2022 we put extra effort into getting our suppliers to integrate recycled materials, supporting them in investigating their supply chains and finding suitable recycled material sources.

Fairphone ultimately aims to use post-consumer recycled materials, but we've started by investigating pre-consumer recycling first. For many metals, suppliers are already integrating recycled content as a standard practice, but mostly without reporting on it. We continue to investigate the use of pre-consumer recycling, and also work to increase the use of recycled materials from end-of-life products (post-consumer recycling), investigating and helping set up supply chains from waste sources that haven't been widely used by the electronic industry yet — such as urban mining (see above).

MAGNESIUM

- In 2022 we increased the amount of recycled magnesium in the Fairphone 4 LCD display from 30% pre-consumer recycled materials to 90% post-consumer recycled materials. This required testing, adjusting, and verifying quality and production issues in the component.
- We also moved from a self-assessment by the supplier to a third party verification of the recycled content. Through building the relationship with the component supplier, we managed to do this earlier than planned and we will build on this work in 2023.

PLASTICS

- In addition to increasing the percentage of post-consumer recycled plastics in our products, in 2022 we also started to work more with medium-sized plastics suppliers, creating unique sources from ocean plastic waste and industrial waste. Through these efforts, we create more waste source options for the whole industry. These new post-consumer plastics sources were developed and tested in 2022, and will be ready to use in our products in 2023!

Fair materials in our True Wireless Stereo Earbuds

The Fairphone True Wireless Stereo Earbuds are the first earbuds on the market to have Fairtrade gold integrated into the supply chain (10% of their total gold content). The other 90% gold content is compensated with Fairmined credits. They also contain 30% recycled plastics in the earbuds and the charging case. We made the packaging as sustainable as we could by avoiding single-use plastic and using FSC-certified paper material and soy-based printing ink.

SILVER

- We are exploring the opportunity to integrate materials from e-waste (“urban mined” post-consumer recycling material from informal waste dumps) back into our supply chain and products. In 2022, we trialed this with a small amount of silver recovered from old mobile phones collected in Ghana through our partner Closing the Loop.

After engaging our product supplier, refiner and recycler, we came to the conclusion that connecting this silver with one of our suppliers in China would be difficult, uneconomical, create additional CO2 impacts, and could probably not be scaled to larger amounts of materials.

Therefore, in 2023 we will continue researching fairer silver sources to link to our supply chain, in parallel to establishing the project to further improve urban mining in Ghana.

To reach our ambitious Fair Materials target for the Fairphone 4 we continue to engage with and challenge our suppliers to use more recycled and fair mined sources. We are also developing and exploring credits systems beyond Fairmined gold to compensate our material footprint by investing in improving mining practices for cobalt and silver.

Fair materials key components

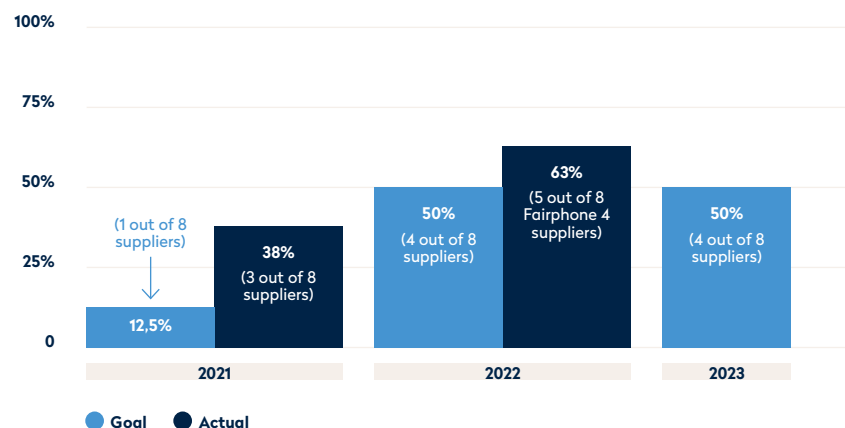


3.5 Decent work in manufacturing

KPI 5: FAIR FACTORIES



% of strategic Fairphone 4 suppliers who demonstrate improvements or high maturity



The challenge

A phone is the work of many hands. Thousands, in fact, when you count the hands that mined or fabricated its materials and assembled and tested its parts. Unfortunately, those hands often belong to people who work long hours for low wages. They can live in extreme poverty. Some are children, or unwilling victims of violence. Not all get to have a say in how much they're paid, or to shape the conditions under which they work. The conditions that lead to abuse or even worker deaths are too often accepted by an industry that would rather look away than engage.

Most companies audit suppliers against an ethical Code of Conduct to ensure good working conditions. While this has had positive impact over the years — especially on basic health and safety conditions at the factory floor — it hasn't effectively addressed root causes of systemic issues like low wages, lack of worker representation and excessive overtime. Additionally, these audits don't capture the subjective dimensions of factory workers' well-being, such as their level of satisfaction or exposure to discriminatory behavior in the workplace.

Improvements in decent work by strategic Fairphone 4 suppliers

This KPI measures the percentage of our direct and indirect strategic Fairphone 4 suppliers that already have a high maturity in decent work or that have realized improvements since collaborating with us.* In total, we define eight of our direct (tier one) suppliers and indirect (tier two) suppliers as strategic suppliers within our supply chain.

* Suppliers of products other than Fairphone 4 or its components are not measured in this KPI, even if we work with them to advance decent work.

There are larger issues at work here that need to be addressed. An industry built around short life cycles has in-built pressures to launch new products at an insane pace, incentivizes excessive working hours and prioritizes deadlines over worker health. Add to that low wages, unfair value distribution and social harms that are not reflected in product prices, and it's clear we need more than better regulation: we need to transform the industry.

Our approach

A FAIRER WAY OF WORKING

- We go beyond traditional audits and Codes of Conduct
- We conduct research to assess working conditions
- We survey workers to understand their needs
- We develop worker-driven action plans to find and implement solutions

To ensure our suppliers provide decent working conditions, we start with desk research and a supplier questionnaire. These give us a first indication of what management systems are in place to ensure decent working conditions, respect for the environment, and proper handling of the chemicals they work with. It includes questions about more vulnerable worker groups, such as student workers or those of an ethnic minority. Our engagement then goes deeper, with an extensive worker survey to fully understand the perspective and needs of workers. We develop worker-driven action plans based on those results, and aim to involve workers — or their representatives — in finding and implementing solutions.

We engage with suppliers on the following themes:

- **Environment, health and safety:** We set a high requirement for social compliance for the final assembly of our smartphones (SA8000 or RBA Silver Recognition). We pay close attention to the environmental performance of our suppliers and encourage them to set ambitious energy and carbon reduction targets.

- **Worker satisfaction:** We invest in capturing the worker's perspective for our tier one and tier two suppliers. After identifying topics workers would like to see improved, Fairphone (and the supplier) also invests in these improvements. This could include sponsoring communication training for line leaders, purchasing personal protection equipment or renovating dormitories.
- **Worker representation:** We guide our tier one and tier two suppliers in setting up worker representation systems with democratic elections, and sponsor expert capacity building training for both worker representatives and management.
- **Living wage:** In 2019, Fairphone became the first electronics company to support factory workers with a living wage bonus — a premium that workers received directly. In 2022, we were the first to also support an indirect (tier two) supplier of a component with a living wage bonus.

Fair factories fairness themes



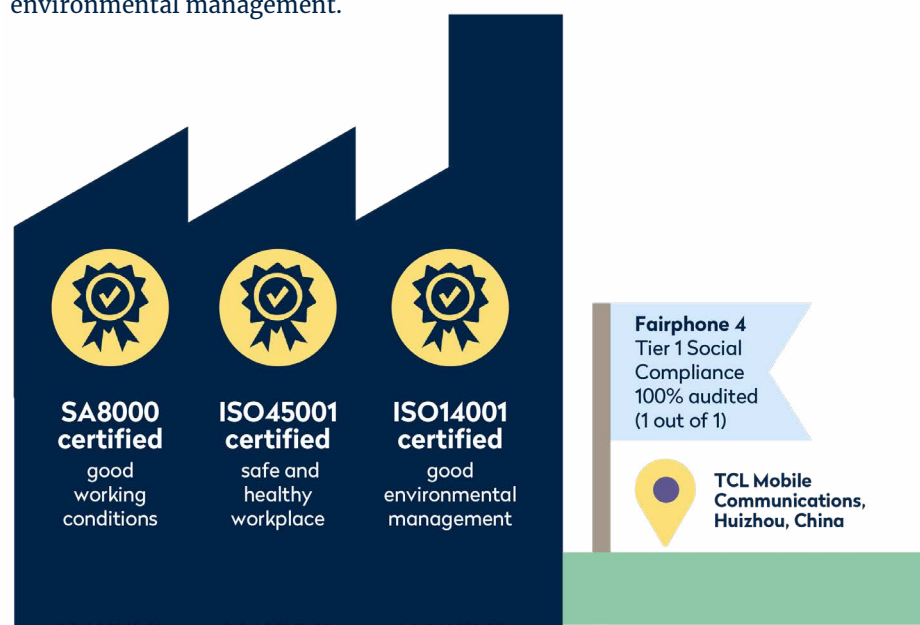
We also look at ourselves and our responsible purchasing practices, including our planning, forecasting and pre-financing. Our [Ways of Working Together](#) and impact requirements are included in all contracts with our direct suppliers. We incentivize suppliers by offering a higher product price if they improve their social and environmental impact. And as noted above, we pay product prices that enable living wages, effectively ring-fencing labor costs.

Results

Five of our eight strategic Fairphone 4 suppliers made improvements in relation to decent work: the final assembly factory and the suppliers of the camera, battery, speaker and vibration motor.

We also worked with the Fairphone 3+ final assembly and the True Wireless Stereo Earbuds supplier to advance decent work (but as these were not directly related to Fairphone 4 production, those efforts are not counted in the KPI).

The final assembly manufacturer of the Fairphone 4 has SA8000 certification, one of the highest standards for safe and decent working conditions, along with an ISO14001 certificate for environmental management.



Living wages results

Living wage bonuses were paid at three suppliers during the year: Fairphone 4 final assembly, Fairphone 3+ final assembly, and a tier two component supplier — in fact, we were the first electronics company to support a tier two supplier in this way. The cost impact of those payments came to only US\$1.99 per Fairphone 4, US\$1.89 per Fairphone 3+ and US\$0.06 per vibration motor.

A total of US\$305,000 was paid to 1,926 factory workers at three factories to increase their wages in 2022. For the workers of the final assembly factory of Fairphone 4, this equals almost one month of extra salary.

But this doesn't mean the workers earn a full living wage yet; we can't compensate workers for their efforts on other brands' products that are produced in the same factory. To achieve a full living wage for all workers, we need all electronics companies to pay product prices that enable living wages. Additionally, the factory workers wanted us to share the bonus with *all* low paid workers at the factory, whether or not they work on Fairphone products. This results in a small bonus for many people, instead of a full living wage for a small group of workers. The Fairphone bonus closes the living wage gap by 6.5%. To fully close the wage gap and facilitate more companies in choosing the fairer, more ethical path, we published [a manual on how to pay living wages in the supply chain](#).

Legislation also plays an important role in moving our industry forward. In 2022 Fairphone initiated an advocacy campaign calling on the EU to include living wages and income as a human right in the EU Corporate Sustainability Directive. We sent a letter that was signed by 64 companies, investors and NGOs to key members of the EU Parliament, the EU Commission and EU member states. Fairphone further shared concrete amendments to strengthen

Fair factories: Living wage bonus

Fairphone recognizes that workers in our suppliers factories deserve fair pay for their labor, and we have taken steps to address this issue. By offering a living wage bonus, Fairphone helps ensure that workers can provide for themselves and their families.

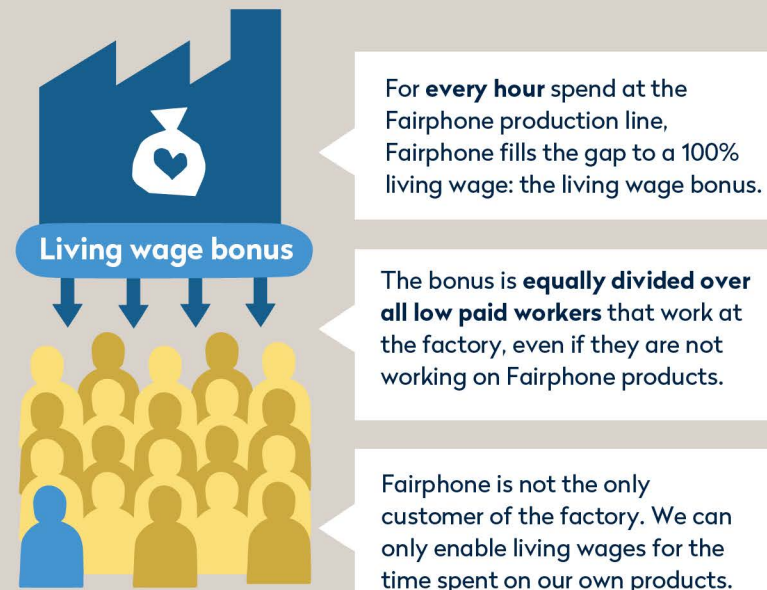


Bonus paid directly to workers

At the Fairphone 4, Fairphone 3+ and vibration motor factories



How does it work?



Actual gap living wage

For a production line worker at the FP4 factory



We need the rest of the industry to help close the gap!

Fairphone Living Wage Bonus

In 2022 for one worker at the FP4 factory

\$245 p/year

almost 1 month of extra salary for a production line worker

In 2022 a total of
\$305,000
paid as a bonus to
1,926 workers
in **3 factories.**

sections on living wage and income. We launched [a petition on Change.org](https://www.change.org), where citizens can also call on the EU member states and EU Parliament to declare a living wage a human right. This petition was signed by over 9,500 people.

Worker representation, Worker satisfaction and Environment, health and safety

Five strategic Fairphone 4 suppliers and two other suppliers (Fairphone 3+ and True Wireless Stereo Earbuds) demonstrated improvements to worker representation, worker satisfaction and environment, health and safety. Examples of improvements made by our suppliers include:

- Worker representation: the establishment of worker representation committees at two factories and organization of democratic elections of worker representatives
- Worker satisfaction: two suppliers offering better wages to their workers (aside from our living wage bonuses), investment in new machinery, more varied and better food at canteens, improved recruitment policies, improved communication channels between managers and workers via skill building training
- Environment, health and safety: better protective equipment, reduction of waste by introducing better packaging materials and reducing the use of bottled water.

With each of those suppliers, Fairphone invested in improvements. These include sponsoring training for management, worker representatives and workers, purchasing protective equipment, and offering guidelines, examples of best practices and independent research to strengthen supplier policies.



True Wireless Stereo Earbuds

With the True Wireless Stereo (TWS) Earbuds supplier, an extensive worker survey was conducted by an independent third party to capture the perspective and needs of the factory workers. A further assessment was performed by an independent third party to evaluate all the social and environmental policies, targets and actions the supplier has in place, followed by the development of an action plan. This led to improvements on environment, health and safety as well as on worker satisfaction.

Improvements made in factories



Improvements made per supplier

In 2021 and 2022, Fairphone worked together with these seven direct and indirect suppliers to improve working conditions, worker voice and living wages.

KPI score



= one KPI point



= not included in KPI

Supplier		THEME 1 Environment, Health & Safety	THEME 2 Worker Satisfaction	THEME 3 Worker Representation	THEME 3 Living Wage
Included in KPI	Final Assembly Fairphone 4	✓ High Maturity			✓ ✓ Improved in 2021 & 2022
	Camera supplier Fairphone 4	✓ Improved in 2022	✓ Improved in 2022	✓ Improved in 2022	
	Vibration Motor supplier Fairphone 4 & 3+	✓ Improved before 2021	✓ ✓ Improved 2021 & 2022	✓ Improved before 2021	✓ Improved in 2022
	Speaker supplier Fairphone 4 & 3+		✓ ✓ Improved in 2021 & 2022	✓ Improved in 2022	
	Battery supplier Fairphone 4		✓ Improved in 2022		
	Final Assembly TWS earbuds	✓ Improved in 2022	✓ Improved in 2022		
	Final Assembly Fairphone 3+	✓ Improved before 2021	✓ Improved in 2021	✓ Improved in 2021	✓ ✓ Improved in 2021 & 2022

Hazardous chemicals

In 2022, Fairphone joined the [Towards Zero Exposure Commitment Program](#), a leading initiative to protect workers from chemical hazards in the electronics supply chain, and we're making progress in our commitments. This partnership of companies and NGOs has identified nine priority process chemicals that urgently need to be replaced with safer alternatives to protect workers. Process chemicals are chemicals used in the manufacturing of electronic products — such as solvents or cleaners — that you don't find in the

final product. Workers who need to use them may risk exposure and serious health problems.

To protect workers and the environment, Fairphone has developed a Restricted Substances List (RSL) which lists materials and chemicals that can and can't be used in our products and in the manufacturing processes. This RSL has been communicated to our suppliers.

Fair Factories: Safe use of chemicals

USE OF CHEMICALS

To protect the health of workers and the environment, Fairphone does not allow the following chemicals to be used in the production process at suppliers, such as solvents and cleaners.

- Arsenic and its compounds
- Benzene
- 1-Bromopropane
- Dichloromethane (Methylene Chloride)
- Formaldehyde
- Methanol
- n-Hexane
- N-Methyl-Pyrrolidone (NMP)
- Ozone depleting substances
- Tetrachloroethylene
- Toluene
- Trichloroethylene (TCE) and other chlorinated organic solvents and compounds
- Xylene

TOWARDS ZERO EXPOSURE

To date, Fairphone has made progress on the following Towards Zero Exposure commitments:



Eliminate exposure to priority chemicals

None of the priority chemicals are used at the final assembly factories for Fairphone 3+ or 4.



Data collection

The data collected on priority chemicals using the Process Chemicals Data Collection (PCDC)-tool represents over 80% of our supply chain spend and involves two suppliers.



Verification & reporting

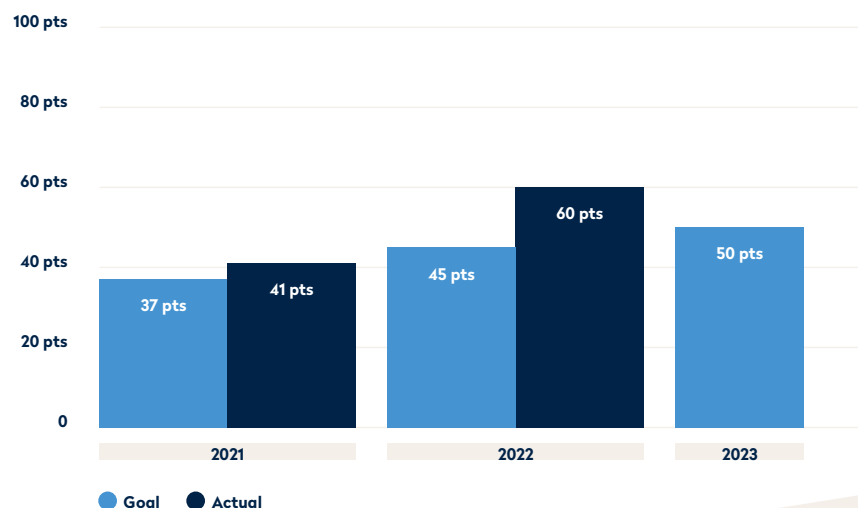
The process chemical data and documents of our suppliers were reviewed by Fairphone.

3.6 Driving wider impact within our industry

KPI 6: INDUSTRY INFLUENCE SCORE



Number of points scored on industry players that adopt/apply one of Fairphone's Thought Leadership solutions (cumulative score 2017-2022)



The challenge

We strongly believe that the more, the merrier; Fairphone encourages other players in the electronics industry to join us in our work to make all electronics fair, sustainable and part of a circular economy. This is an optimistic undertaking that will require massive joint effort from all of us. Fairphone is, after all, a relatively small player in a huge system with many interdependencies; only when other actors in the value chain choose to do better, can we achieve change on the scale needed to address the problems of our industry. By working to influence other companies to move the industry in a fairer direction, and by inviting them to join us and collaborate, we can show that being fairer is good for business as well as people and planet.

Our approach

- Partnerships and collaboration with industry peers
- Scalable solutions
- Ambitious, transparent goals
- Raising awareness of solutions
- Fairphone Industry Challenge

Measuring Fairphone's industry influence

This KPI is an attempt to reflect the influence of Fairphone on other industry players beyond our own supply chain who adopt or apply our solutions. We do this via a points system which reflects the market value of the company or association in question: below \$2 billion = 1 point, above \$2 billion = 2 points, and above \$10 billion = 3 points.

Are we the only catalyst for all positive changes in the electronics space? Of course not — this isn't about taking credit or seeking praise. But by setting targets and measuring progress in the adaptation of the ideas we promote, we keep ourselves sharp and focused on developing solutions that are scalable, and on building partnerships required for broader systemic change.

With last year's Impact Report, we introduced the [Fairphone Industry Challenge](#). It's a checklist of ways other manufacturers could ramp up their efforts to improve lives and reduce harm. Even if only one or two major phone manufacturers were to take up the full set of actions we call for, the impact on the industry as a whole would be massive.

Results

In 2022 we scored 19 industry influence points, reflecting 13 industry pioneers that joined us on the path to a fairer future. Since we began measuring this KPI in 2017, we have accumulated 60 industry influence points in total, with 32 industry actors joining or replicating Fairphone's solutions.

In 2020, Fairphone founded the Fair Cobalt Alliance (FCA) in collaboration with The Impact Facility, with the aim of mobilizing actors across the entire cobalt mineral supply chain to improve ASM cobalt mining and the DRC mining sector. [24 companies and NGOs](#) currently participate, each representing part of the cobalt mineral value chain.

In 2022, six new members joined the Fair Cobalt Alliance, including a large multinational company focusing on search engine technology, advertising and consumer electronics, as well as a leading international supplier of battery solutions, a large international mining group established in 9 countries in Africa, a scaling electric bike company and a consultancy group. More about the FCA's 2022 results can be found [here](#).

[Project Access](#), a Fairphone initiative with The Impact Facility and Solidaridad, builds on years of ESG (environmental, social and governance) and formalization support to artisanal gold miners in Kenya and Uganda. It is co-financed by the Dutch EPRM (European Partnership for Responsible Minerals) and aims to further improve ESG performance and provide foreign market access to small-scale gold producers. To drive market acceptance, Fairphone also convenes gold buyers to commit to investment contributions for this gold. In 2022 this resulted in five private gold companies and two consumer electronics companies signing a letter of intent and committing to off-take the responsible gold once available.

INFLUENCING OUR INDUSTRY ON LONGEVITY, E-WASTE AND FAIR FACTORIES AGENDAS

- The call for a "right to repair" is becoming louder by the day, and ever since the Fairphone 1, we have worked to strengthen that call. In 2022, we saw the first small steps being taken by bigger smartphone players to launch self-repair programs, as can be seen [here](#) and [here](#). But there is more work to do: ease and affordability of repair are critical, and the industry must rise to that longevity challenge.
- When we launched the Fairphone 4 in 2021, we became the first company to commit to electronic waste neutrality, meaning that for every product we sell, we take one back. In 2022, this proposition [inspired others in the industry](#) to make similar promises, which has been exciting to see!
- We actively advocate for the industry to ensure the people making our products receive a living wage. We can see movement on this within the industry, such as the OECD (Organisation for Economic Co-operation and Development) announcing that it's developing formal [guidelines](#) to enable living incomes and wages.

- In 2022 we initiated an advocacy call on the EU to ensure that living wage and income are included as a human right in the EU corporate sustainability due diligence directive (EU CSDD), and that their definitions are not compromised. The letter was signed by 64 companies, investors and NGOs from multiple industries and countries. The call was sent to over 100 legislators in the EU Parliament, European Commission and EU member states, as well as being published via press release and social media.

In addition to the examples above, we actively share our best practices in the following platforms:

- Aluminum Stewardship Initiative (ASI)
- B Corporation
- Circular Electronics Partnership (CEP)
- Clean Electronics Production Network (CEPN)
- European Partnership for Responsible Minerals (EPRM)
- European Raw Materials Alliance (ERMA)
- Fair Cobalt Alliance (FCA)
- IDH's Roadmap on Living Wages
- Initiative for Responsible Mining Assurance (IRMA)
- Living Wage and Income Lab
- MVO Nederland
- Responsible Business Alliance (RBA)
- Responsible Labor Initiative (RLI)
- Responsible Lithium Partnership (RLP)
- Responsible Minerals Initiative (RMI)
- Right to Repair Campaign
- Social Enterprise NL
- UN Global Compact
- Towards Zero Exposure program

While we applaud and take pride in these efforts, we also note how much more impact our industry colleagues could have if they took the actions we recommend in the [Fairphone Industry Challenge](#). That's a detailed checklist of practical ways manufacturers can do their part to transform our industry. We hope that next year we can report more uptake of that challenge.

3.7 Positive net result, company growth, and development

KPI 7: NET FINANCIAL RESULTS

Our results

Fairphone Financials		
Financials (€ '000)	2021	2022
Revenue	36,962	58,998
EBITDA	5,687	4,484
Normalized EBITDA	2,190	4,484
Net result (€ '000)	3,876	44

Ultimately, our industry peers will be wondering what this all translates to in terms of money. It's our mission to establish and demonstrate a market for fair and sustainable consumer electronics. This also entails showing that a mission-driven company can achieve a profit through purpose. And that's what we have been doing since achieving profitability in 2020.

We are very proud to have marked a **third consecutive year in profit in 2022: we increased our revenue by 62% compared to 2021 and ended the year with a net result of €44,007**. While significantly down from our €3.8 million net in 2021, we are proud to have remained in the black and relatively on course during this difficult and unpredictable economic period, while still making a positive impact on our value chain.

The 2022 positive result is lower than previous years as the 2020 and 2021 results were supported by one-off tax effects and a dispute settlement with a previous manufacturing partner. Recently we have also been investing more in marketing to raise brand awareness, which, in the short term, lowers our results, but should have a positive longer term effect. We aim to raise brand awareness to increase our sales volumes, as we have more impact with every phone sold.

We have never distributed any profit to shareholders and have never paid out any dividend. Profits are reinvested in the success of our business. Our Q1 2023 funding round did provide a return to our founding shareholders, and we are proud to have demonstrated that impact investing makes economic sense. The extra funding we attracted will enable us to accelerate scaling our impact throughout the year.

Team Fairphone

Our Fairphoners are the driving force who bring us closer to reaching our mission every day. In 2022, our team grew by 23 in our Amsterdam HQ, and by five in Asia. We're excited to continue attracting — and retaining — motivated and talented people to join us in our work.

Overall, our total full-time staff increased by 28 to 131. To further support our growth ambitions, a new Marketing team was created to strengthen and support various commercial goals, and to further improve the entire customer experience and journey. Additionally, vacancies across several teams were filled, bringing in the right expertise, while also enabling career growth internally; out of the 66 people that were recruited in 2022, seven roles were filled internally, and another seven roles were filled via team member promotion.

Our diverse team consists of 29 nationalities and has an average age of 35 years (our team members range from 23–69 years of age), while we have 55% female Fairphoners and 45% male Fairphoners. The percentage of women in top executive positions (excluding boards of directors) is 40%. The percentage of women within the organization's board is 17%. Although there is only one woman in the SB (the 17%), she is also the chair of the supervisory board. Looking critically at our unadjusted gender pay gap, we discovered that on average our female Fairphoners earned 9% less than our male Fairphoners. While this is 5% below the [gender pay gap](#) in the Netherlands (14.2% in 2022), we want to challenge ourselves in the coming years to further close this gap. Linked to this, the general topic of Diversity, Equity, and Inclusion (DEI) was also promoted by an internal committee, and an action plan around implementing more formal DEI efforts was put in place — we'll engage with an external party to support us in this topic.

We continued to achieve a relatively low sickness absence below 5% in 2022 (4.95%). At the end of the year, two team members were on long-term sick leave and following reintegration plans. The yearly turnover rate was 6.4%.

In 2022, Fairphoners across all teams and hierarchy levels were rewarded for exceptional and exceeding performance with ESOP (employee stock ownership plan) grants as part of our annual performance cycle.

Back to the office

In the second year at our new office space in the Van Diemenstraat 200 in Amsterdam, more and more Fairphoners returned to work at the office. On the busiest days — Tuesdays and Thursdays — around 60 people work at our HQ.

We see in-person interaction as an important part of our culture, where we can build meaningful work relationships. To further encourage office attendance, we (re-)introduced a number of benefits: full coverage of commuting costs (both for public transport and bicycle plans), free healthy lunches daily, weekly yoga classes and chair massages. We also introduced new benefits such as subsidized OneFit and Headspace memberships to support the well-being of our employees, an increased home-office budget and additional holidays (a day off on birthdays, and an additional holiday after three and five years in service).

It has been great to host more in-person events again after such a long period of working remotely due to the pandemic, which allowed old and new Fairphoners to get to know each other and reconnect. We especially enjoyed our summer meeting at the beach and the office Christmas party where about 100 of us got together in person. We also hosted an urban mining workshop for the children of Fairphone employees at our Amsterdam office.

Trust and transparency

Unfortunately, at the end of 2022, Fairphone's first — and hopefully last — internal misconduct case occurred: two employees privately and one employee indirectly received commission payments from a third-party supplier. An external whistleblower tipped us off, and our thorough investigation confirmed the allegations. We have a clear zero-tolerance policy against any form of misconduct, and it is deeply embedded in the culture of Fairphone's day-to-day interactions. Therefore, it came as an incredible shock to all of us at Fairphone. It has opened our eyes to vulnerabilities in our internal organization, which we're improving and strengthening. We're committed to learning from this and staying true to our focus on humanity in business. We've stopped working with the supplier in question and the three employees are no longer with us.

This incident has tested our faith, yet will not limit our beliefs in the importance of trust. Our values of care, collaboration, transparency and facing challenges head-on guided us through this case. We still trust in what unites us: our mission and our core beliefs.

How our team rates us

We check in regularly with our team members and have quarterly pulse surveys to gauge the employee experience. In 2022 these surveys showed overall increased positive results across main HR KPIs: the average employee engagement rate reached 91% and 87% of team members would recommend Fairphone as a great place to work. Satisfaction with Leadership remained strong at 83%, personal development increased to 75%, and employee satisfaction improved by 8%, reaching 78%.

We have paid particular attention to cross-team collaboration and work-life balance. Multiple efforts were made to further emphasize and improve these topics. These included a movement to working in six-week cycles across the entire company, helping us to remain aligned on priorities, and employees have access to external mindfulness coaches. As a result, cross-team collaboration improved by 7% to 61% and work-life balance increased by 13% to 65%.

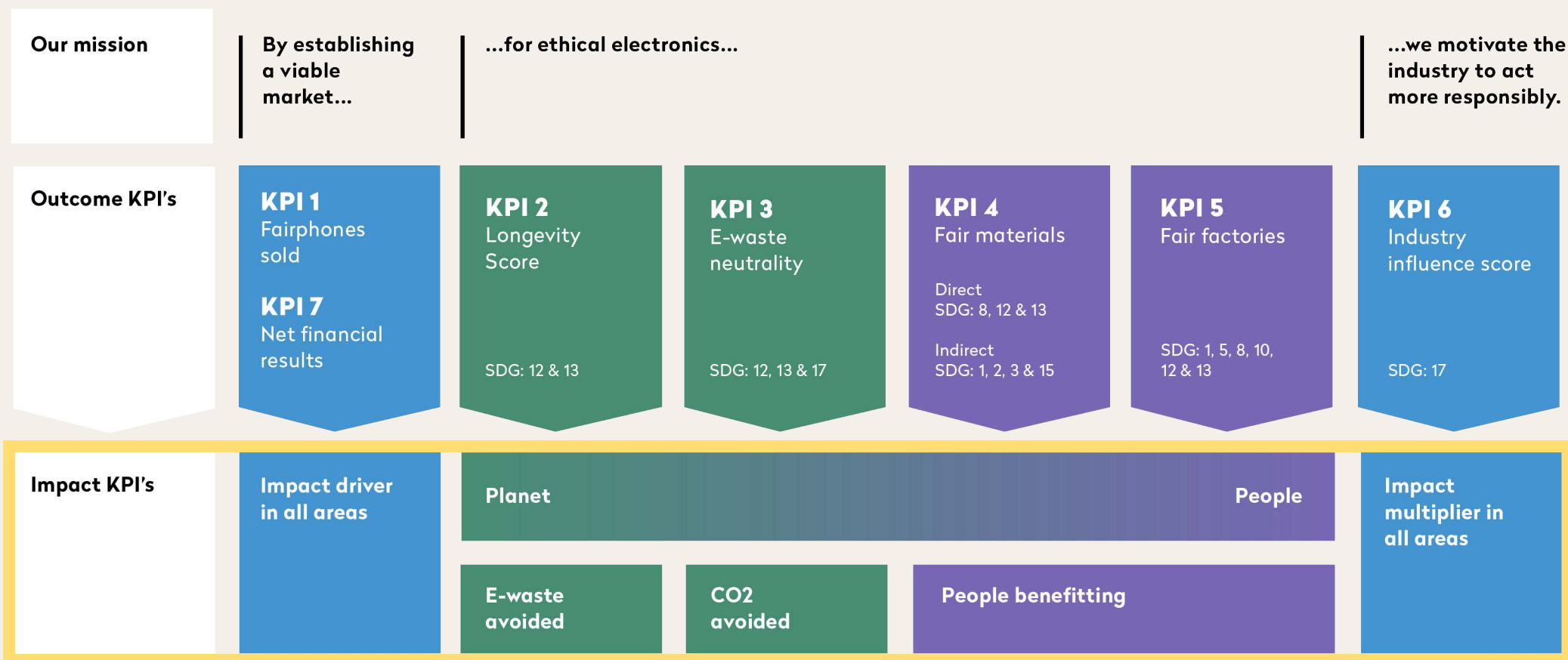
4

The impact of our efforts on people & planet

The “Big Idea” behind Fairphone isn’t just about selling more phones; it’s about selling more phones in a way that proves a point about social and environmental responsibility. We work hard and openly to inspire others to take up our methods, flock to fairer suppliers, use the fair materials we source and adopt our policy of paying a living wage.

Impact KPI's

Our “Impact KPIs” measure the collective social and environmental impact that our customers are having on specific problems by choosing Fairphone. They’re what all our efforts add up to.

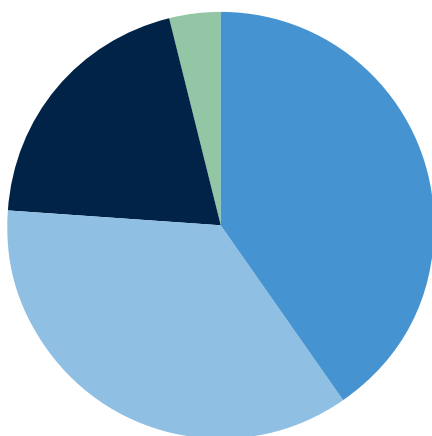


4.1 Improving environmental performance

We measure our environmental impact through calculating how much we contribute to avoiding or reducing the massive tide of e-waste and greenhouse gases our industry creates.



4.1.1 E-waste avoided



How we avoided e-waste in 2022

- 40.5% Take-back from countries w/o sufficient formal recycling (related to KPI 3)
- 35.9% Longevity (related to KPI 2)
- 19.8% EU-EU - Take-back financed by WEEE fee (related to KPI 3)
- 3.8% EU-FP - Take-back programs combined (related to KPI 3)

Measuring the e-waste we avoid

This KPI measures how much electronic waste we avoid and reduce, in tons, through the longevity of our phones, e-waste take-back programs and other projects contributing to the prevention of e-waste.

The challenge

The world is facing an accelerating triple crisis: climate change, nature loss, and pollution of Earth's land, air and water.

Our industry contributes to all three, primarily through raw materials usage. Every phone becomes e-waste at the end of its life, sending dozens of raw materials into the world's fastest growing waste stream.

Our approach

- Longer-lasting, modular design
- Enabling and incentivizing repair
- Module upgrades and DIY repair
- Refurbishment of retired phones
- Take-back and e-waste collection programs
- Efficient and safe recycling

For information on longevity of Fairphone products, [see KPI 2](#).

We give retired phones a second life through refurbishment and with our circular business model [Fairphone Easy](#).

Results

We avoided **15.0 tons of e-waste in 2022** through two different strategies: reducing resource use (and future e-waste) through the longevity of our phones (5.4 tons), and by removing 9.6 tons of e-waste through responsible recycling and through various take-back and collection programs which are used for our e-waste neutrality proposition (see KPI 3).

Through the sales of our Fairphones and True Wireless Stereo Earbuds, we placed 26.5 tons of electronic products on the market. The difference between 26.5 tons put on the market and 9.6 tons removed in relation to e-waste neutral results from 1) the e-waste neutral proposition not applying to Fairphone 3(+) and 2) the Fairphone 4 being compensated by unit (taking 1 phone back), not by weight.

E-WASTE PREVENTED IN 2022 — RESOURCES SPARED THROUGH LONGEVITY OF FAIRPHONES

We estimate how many tons of e-waste are avoided when our Fairphones are used longer than the market average — thereby avoiding the purchase (and production) of another phone.

We base our calculations on the following:

- The Life Cycle Assessment of our Fairphones
- The market average percentage of phones active in a certain phone age group, based on a lifetime of 2.7 years (the average phone market lifespan)
- The number of Fairphones 2, 3, 3+ and 4 active per phone age group at the end of 2022.

For each phone age group, we calculate how the percentage of active Fairphones compares to the percentage of active smartphones on average in the market. For the difference in percentage, we calculate proportionally how many phones were

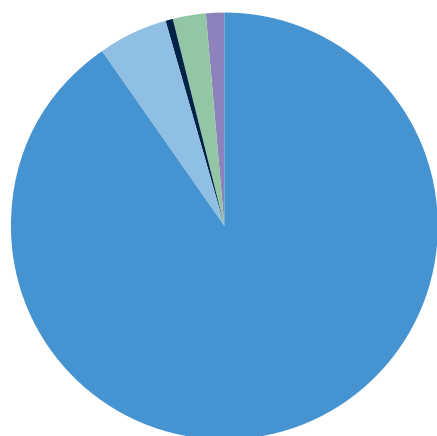
not purchased (and produced) thanks to Fairphones being used for longer. A calculation example can be found in [appendix 2](#).

For more information on our phone collection, see [KPI 3 E-waste Neutrality](#). To learn more about material integration efforts related to phone recycling and our research on more directly improving the situation on the ground in Africa, refer to [KPI 4, Fair materials](#).

E-WASTE REMOVED IN 2022 — RESOURCES SUPPLIED FOR REUSE OR RESPONSIBLE RECYCLING

In Europe, we remove e-waste by taking end-of-life devices back through our Reuse and Recycle Program, our Module Take Back Program, B2B take back, Urban Mining Workshops and phones collected by Fairphone paying fees under Europe's Waste Electrical and Electronic Equipment Directive. We also collect e-waste from Africa by purchasing phone compensations from our partner [Closing the Loop](#) and through a project with the Ghanaian company Recell.

4.1.2 CO2 avoided



How we avoided CO2e in 2022

- **90.3%** Production emissions avoided due to longevity of FPs (related to KPI 2)
- **5.4%** Take-back from countries w/o sufficient formal recycling (related to KPI 3)
- **2.6%** EU - Take-back financed by WEEE fee (related to KPI 3)
- **1.2%** Recycled material integration (related to KPI 4)
- **0.5%** EU-FP - Take-back programs combined (related to KPI 3)

Calculating the CO2e we avoid

This KPI measures the avoidance of carbon dioxide and other greenhouse gas emissions by calculating the difference between Fairphone's efforts and standard market practice, expressed in carbon dioxide equivalent, or "CO2e" for short.

Carbon dioxide equivalent is a measurement used to compare the emissions from various greenhouse gasses based upon their global warming potential. For example, the global warming potential for methane over 100 years is 21. This means that emissions of one million metric tons of methane is equivalent to emissions of 21 million metric tons of carbon dioxide.

We've made an adjustment to this KPI this year: reporting on the use of renewable energy in our office and our participation in carbon-neutral shipping has been moved out of this indicator to more clearly separate avoided emissions from emission reductions and contributions to climate projects. Instead, we report on these in the [Climate Action chapter](#).

The challenge

As we said earlier, the ICT sector is predicted to contribute 14% of global greenhouse gas emissions by 2040. The smartphone itself contributed 11% of ICT emissions in 2020. The largest share of the emissions from smartphones is generated during the production phase, due to the high energy consumption from material mining and manufacturing processes.¹⁶ In 2022, it is estimated that 4.5 billion smartphones were in use, representing approximately 146 million tons of CO2e.¹⁷

¹⁶ <https://www.sciencedirect.com/science/article/abs/pii/S095965261733233X>

¹⁷ <https://www2.deloitte.com/uk/en/insights/industry/technology/technology-media-and-telecom-predictions/2022/environmental-impact-smartphones.html>

Our approach

Here are the ways we're avoiding the emission of CO₂ and other greenhouse gasses:

CO₂e AVOIDED DUE TO LONGEVITY

Since 75% of a phone's lifetime emissions are generated in the production phase,¹⁸ longevity plays a crucial role in avoiding emissions by reducing phone production. A phone that is used for five years instead of three could avoid emissions of up to 30% per year.¹⁹ We avoid greenhouse gasses when our Fairphones are used for longer than the market average. We use measured data from our [KPI 2, Longevity](#), and add a step to calculate how many emissions are avoided by fewer phones being produced.

CO₂e AVOIDED DUE TO E-WASTE REDUCTION

We estimate the tons of CO₂ and other greenhouse gasses that we avoid through our European take back programs, take-back through Europe's Waste Electrical and Electronic Equipment (WEEE) Directive fee, and take-back from countries with insufficient recycling infrastructure. We calculated the CO₂e gains of making secondary raw materials available through recycling.

CO₂e AVOIDED DUE TO USING RECYCLED MATERIALS

We also estimate greenhouse gas emission avoidance through our efforts to integrate recycled materials in Fairphones. These calculations are based on data gathered through a literature review by our partner, the Fraunhofer Institute for Reliability and Microintegration ([Fraunhofer IZM](#)). This showed that production of secondary materials usually causes fewer CO₂e emissions than the production of the virgin material. [See KPI 4, Fair Materials](#) for more information about how recycled materials are used in our products.

Calculations and examples can be found in [Appendix 2](#).

Results

In 2022, we avoided 999 tons of CO₂e. This is similar to the emission of the electricity consumption of 650 Dutch households in one year, or more than 500 tons of coal burnt. The vast majority of that was due to the extended useful lifetime of Fairphones, accounting for 90% of total CO₂e avoidance.

In addition to that, our efforts in reducing e-waste account for 9%, while the use of recycled materials in our products accounts for the final 1% of CO₂ emissions avoided. By keeping products at their highest value during their lifecycle through repair and refurbishment, and then recycling them once they reach their end, we avoid tons of CO₂ that would otherwise have been created by producing more phones.

¹⁸ <https://www.sciencedirect.com/science/article/abs/pii/S095965261733233X>

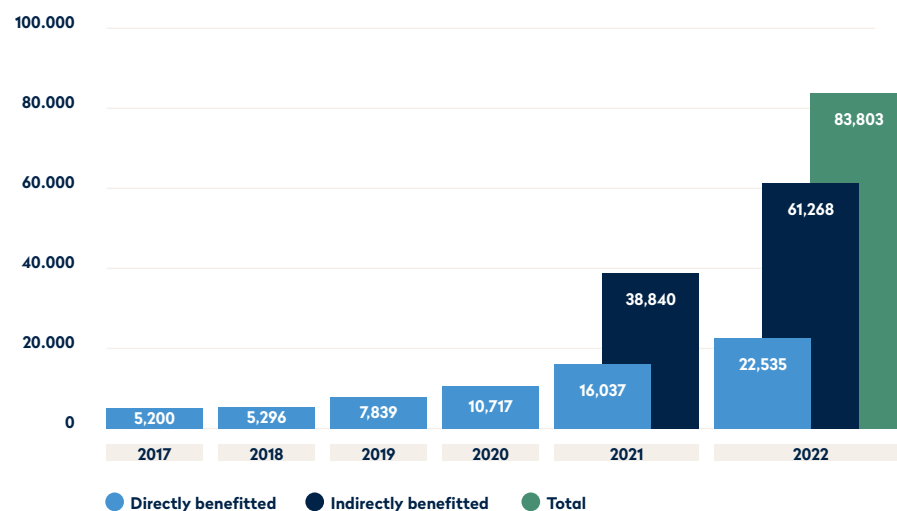
¹⁹ <https://www.fairphone.com/wp-content/uploads/2022/07/Fairphone-4-Life-Cycle-Assessment-22.pdf>

²⁰ Emission reduction through recycling of one kilogram of Fairphones = 1.67 kg CO₂e [positive CO₂ impact per recycled FP3] * (1 kg of phones / 0.190 kg [weight of FP3]) = 8.8 kg CO₂e/kg

4.2 Improving the lives of the people who make our phones



Number of people benefited from Fairphone's interventions and programs (accumulated from 2017 on)



Measuring positive impacts on people

This performance indicator reflects the accumulated number of people directly or indirectly benefiting from interventions and/or projects in which Fairphone was involved, in our work on Fair materials, Fair factories and take-back programs.

The challenge

From mining the materials, to manufacturing the devices, to recovering the valuables in the electronic waste we all generate, our phones pass through many, many hands.

As we pointed out at the beginning of this report, an estimated 18 million people work in the electronics manufacturing industry,²¹ while 49 million people work in the mining of the materials used in electronics (among others),^{22, 23} with another 135–270 million depending on artisanal mining indirectly as a form of livelihood.²⁴

Although the electronics sector provides livelihoods for all these people, these jobs often come at too high a cost. Upstream, in the artisanal mining sector, there are big challenges to improve health and safety, increase income levels and prevent child labor. Further downstream in the supply chain, there are also systemic issues, including excessive overtime, a high percentage of workers employed via labor agencies and little representation of employees.

²¹ [International Labour Organisation](#)

²² [2020 State of the Artisanal and Small-Scale Mining Sector](#)

²³ [IndustriALL Mining and DGOJP](#)

²⁴ [2020 State of the Artisanal and Small-Scale Mining Sector](#)



Our approach

- Multiple impact areas driving real change on the ground
- Improving working conditions through fairer material sourcing
- Engaging with ASM sources
- Fairtrade-certified mines
- Fairmined-certified mines
- Strategic supplier engagement
- Amplifying workers' voices

When it comes to the use of materials in our products, our primary focus has been to find, build and source fairer materials that drive better working conditions and livelihoods for artisanal miners. While most companies actively distance themselves from ASM sources, Fairphone takes the opposite approach and (where possible) sources from, and engages directly with, artisanal mining sources as a means to drive positive impact.

A clear example of this is our decision to source from Fairtrade certified gold mines in Peru and support Fairmined certified

mines. Fairphone is also currently engaged in artisanal mining improvement programs in the DRC (for cobalt), Kenya, Uganda and Tanzania (for gold) and Rwanda (for tungsten).

Further downstream in the production process, we engage and work closely with strategic suppliers to advance our agenda, which includes living wages, amplifying worker voices, and engaging in working and living conditions improvement programs.

And we have ambitions to go even further downstream to improve people's lives: we concluded a research study on informal e-waste recycling in Ghana in 2022, where we expect to develop an improvement program in 2023.

Through this work, Fairphone aims to plant the seeds of solutions which are scalable and applicable by others in the industry, benefiting the people working throughout the entire electronics industry supply chain.

Results

In the year 2022 we reached a new milestone as more than **83,000 people** have cumulatively benefited from Fairphone's work since 2017. In 2022 alone, Fairphone benefitted 54,625 people through our improvement programs and interventions in the supply chain. Of these 54K, **28,926 were new beneficiaries**.

That's a number we're particularly proud of because it's more than a number. It's children that aren't working in mines. It's workers who have more money in their pockets and more say over their working conditions. It's better nutrition, sleeping quarters, training and safer workplaces.

In 2022, to increase our positive impact on people, Fairphone focused on advancing its Fair materials and Fair factories agenda.

People benefiting through our Fair materials agenda

Artisanal miners directly benefit through our contribution of payments of premiums on Fairtrade and Fairmined gold. By choosing fairly mined materials we also send a market signal, increasing demand for responsibly produced, artisanally mined materials. By choosing fair materials for our products — and through our additional direct support — miners also benefit from actions such as training in health and safety and support for legalization, availability of protective equipment, access to financial solutions (for example, leasing) for productive equipment, or remediation and prevention of child labor. For more information on our work on Fair Materials, please see [KPI 4](#).

In 2022 our Fairtrade Premium contribution was distributed to two Fairtrade certified mining cooperatives. On top of that, we started a Fairmined credits pilot together with Alliance for Responsible Mining (ARM) that compensates for gold use that is not (yet) certified. In this pilot, Fairphone paid a premium a Fairmined certified mine in Colombia.

Our work in the DRC with the Fair Cobalt Alliance (FCA) has taken a significant step forward: in 2022, the FCA piloted a **child labor referral system**, which is currently dealing with three identified cases of child labor. The FCA aims to onboard more cases in 2023 and reach at least 18 children from different mine sites. In addition, more miners participated in first aid and health and safety training, and the savings and loans groups of miners and their community were expanded, enabling them to set up or grow small businesses, or pay for social services such as school fees and health expenditures.

We have also continued our engagement with an initiative to foster multi-stakeholder dialogue and community engagement for **improved water resource management around lithium mines in northern Chile**. We are continuing these efforts while working to integrate fairer lithium in our supply chain, collaborating with the Initiative for Responsible Mining Assurance (IRMA).

People benefiting through our Fair factories agenda

We actively engage with strategic suppliers to ensure their workers have a decent life, a living wage, a safe and healthy workplace, and the opportunity to have their opinions and concerns heard.

We work closely with our speaker, camera, battery, vibration motor, and True Wireless Stereo earbuds manufacturers to advance on decent work. We are very proud of having continued two living wage programs with our assembly manufacturers of Fairphone 3+ and Fairphone 4, while adding our tier 2 component supplier of the vibration motor to this program — an industry first.

We are happy to see tangible improvements such as increased worker satisfaction, better wages, improved communication between management and workers, better functioning worker representation, better and more diverse food in the canteen, and renovated dormitories. All of these improvements in worker satisfaction and welfare are clear examples of how Fairphone and other electronics companies can incentivize and promote positive change in the supply chain. For more information on our work on Fair Factories, please see [KPI 5](#).

Detailed overview of how people benefited in 2022 from Fairphone's work:

	Total people benefited in 2022	Total additional people benefited in 2022
Fair Factories		
Fairphone 4 suppliers	21,397	6,838
Fairphone 3+ supplier	2,468	4,484
TWS Earbuds	326	326
Total Fair factories	24,191	7,164
Fair Materials		
Fair Gold	7,479	4,165
Fair Cobalt Alliance	18,241	16,915
Fair Tungsten	4,257	559
Tin cash transfer	277	0
Lithium	180	123
Total Fair Materials	30,434	21,762
Total	54,625	28,926

5

Climate action

Recognizing the urgency of the climate crisis and reaching net zero emissions by 2050 globally, in 2022 we committed to reach net zero by 2045, five years ahead of the suggested timeframe. We also outlined several short-term and intermediate targets to support the achievement of our net-zero target.

We're developing a net-zero roadmap, which will be released in 2023, outlining our strategies and commitments for achieving these goals.

The current scientific consensus is that Earth's climate has warmed significantly since the late 1800s, and that human activities causing greenhouse gas emissions from fossil fuels are the main cause. Continuing to generate such emissions will increase the likelihood and severity of global warming effects.

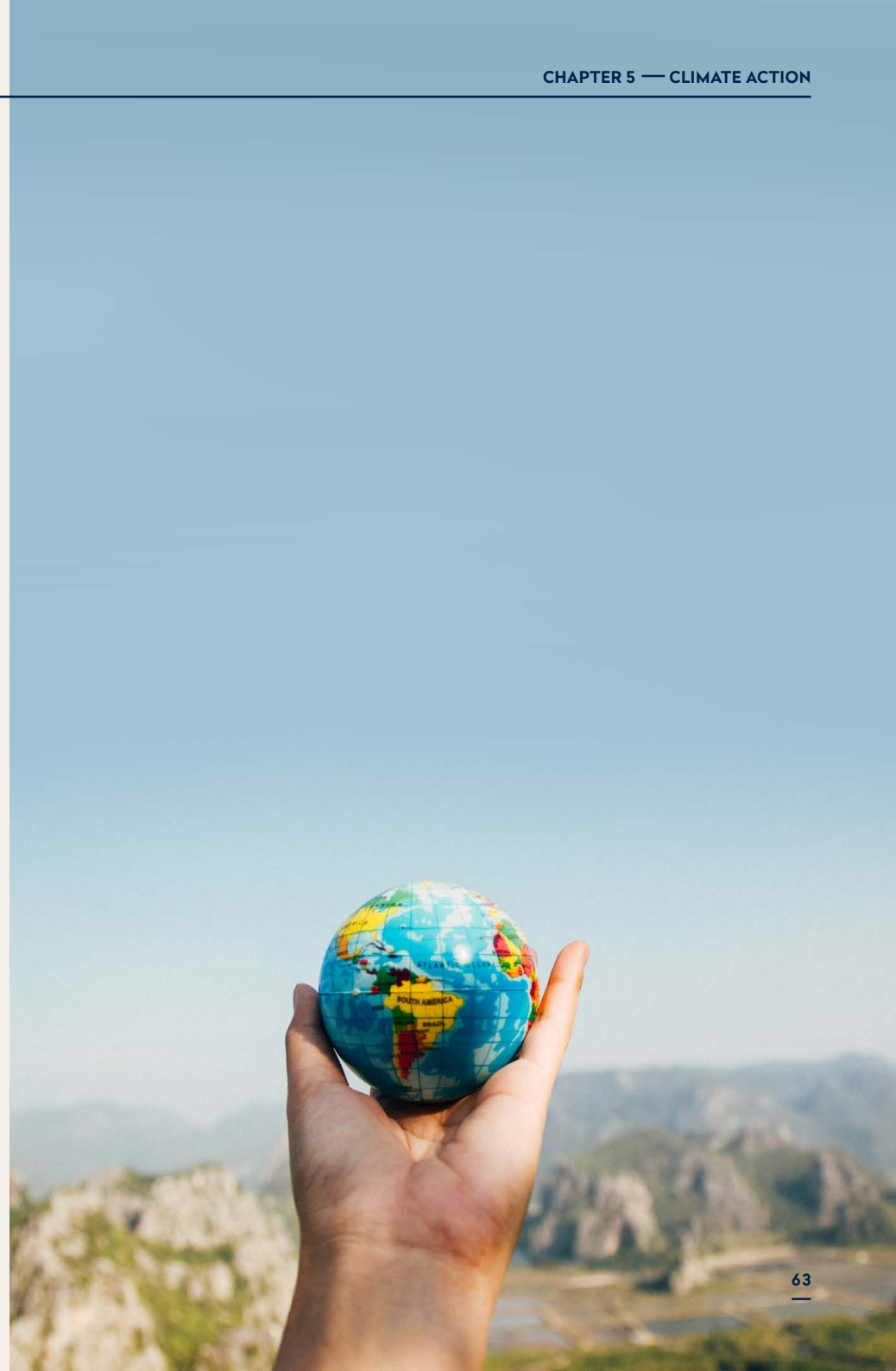
The UN describes this as “code red for humanity”.²⁵ To limit global warming to 1.5° C and prevent worsening the impact of climate change on our planet, urgent action is required to reach net-zero emissions by 2050.²⁶

Previous chapters outlined how, by avoiding CO2 emissions through the longevity of our phones, our recycling programs and the use of recycled materials contribute to tackling the climate crisis.

On top of this, we are also committed to reducing our CO2 emissions at company-level and throughout our value chain. We've set an ambitious net-zero target. To meet that goal, we're actively seeking new and more effective ways to reduce our emissions and have committed to transparently track our progress.

²⁵ <https://news.un.org/en/story/2021/08/1097362>

²⁶ <https://www.un.org/en/climatechange/net-zero-coalition>



5.1 Understanding our greenhouse gas (GHG) emissions

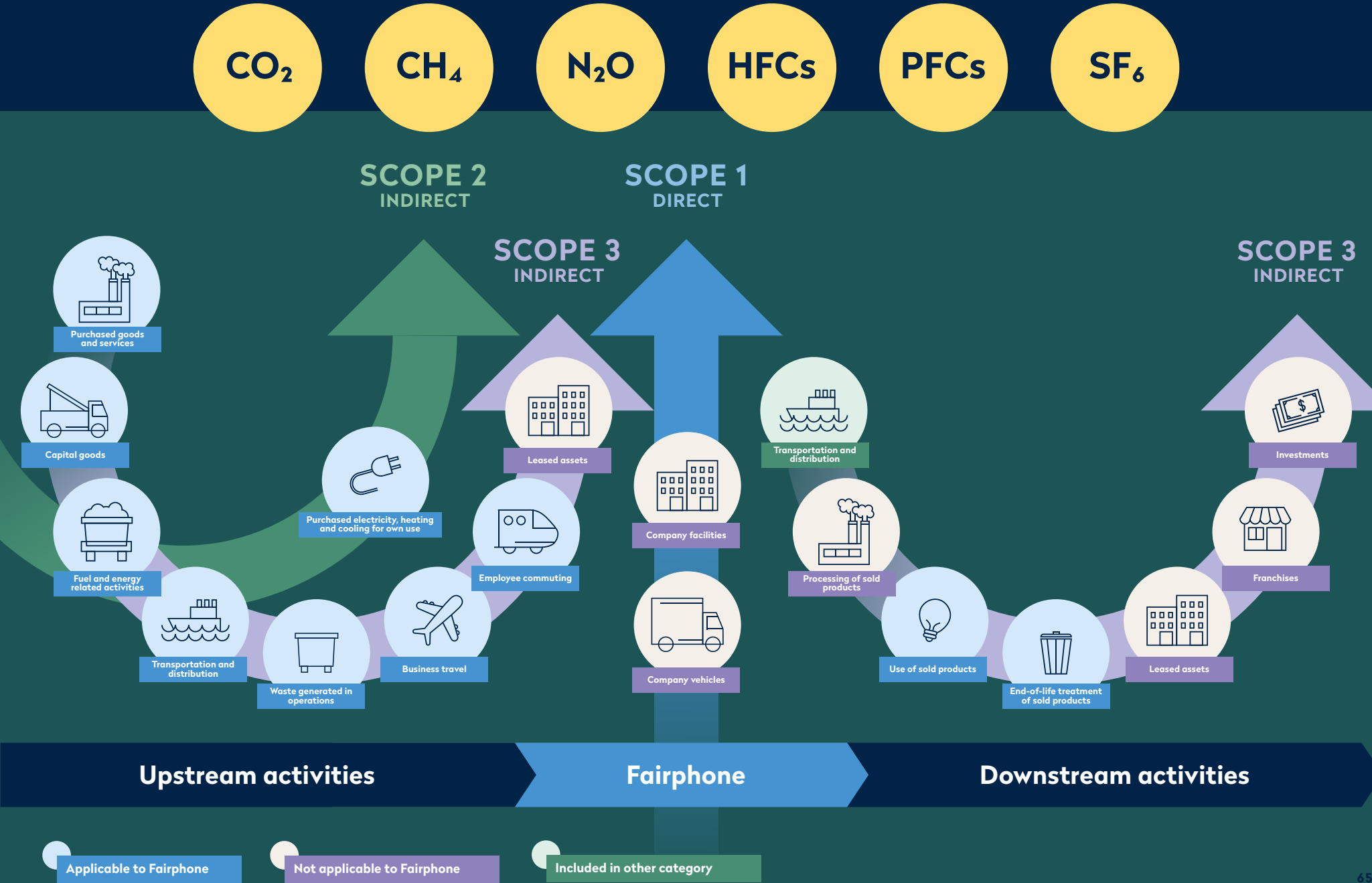
Fairphone's emissions are not only generated by the production of our products, but also by their transportation, the heating in our office, how our employees get to work, and many other things that keep our business running. To actually reduce our emissions, we need to have a clear picture of how much we emit, and from which sources.

In 2021, we calculated our 2019 and 2021 Scope 1 and Scope 2 emissions using the GHG Protocol Corporate Standard.²⁷ We also developed our first GHG inventory report for Scope 1 and 2. In 2022, we calculated our emissions from all Scopes (Scope 1, 2 and 3) using the same standard, set reduction targets and committed to publicly report on them on an annual basis.

- **Scope 1:** Direct emissions from sources which are owned and controlled by the reporting company. Since Fairphone neither owns an office, a production facility nor vehicles, Fairphone does not emit Scope 1 emissions.

- **Scope 2:** Indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the reporting company. Our Scope 2 emissions are derived from the heating system installed in Fairphone's rented office space as the electricity is 100% generated from renewable sources.
- **Scope 3:** Indirect emissions that occur in the value chain of the reporting company, including both upstream and downstream emissions. Fairphone's Scope 3 emissions come from purchased goods and services such as emissions from production, capital goods, fuel and energy-related activities such as transmission and distribution (T&D) losses, upstream transportation and distribution such as emissions generated by transporting products, waste generated in our office, business travel, employee commuting, emissions from our products' use, and end-of-life treatment of our sold products.

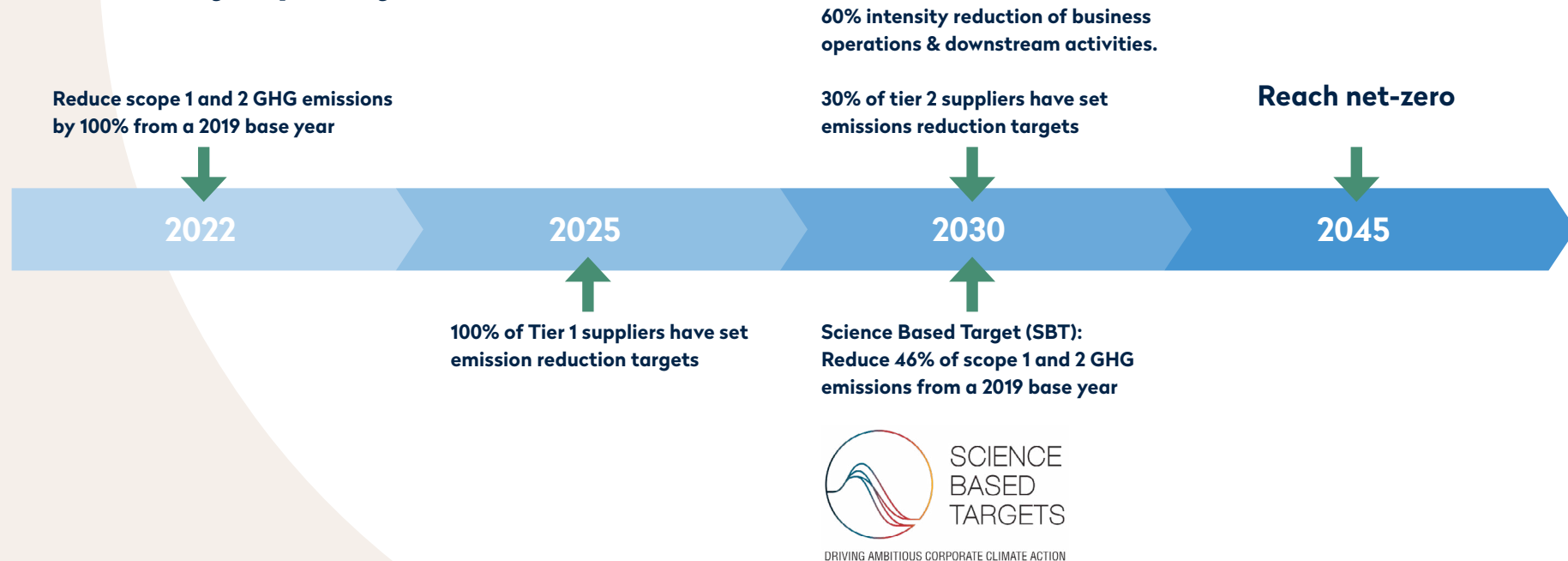
²⁷ The standard includes: The GHG Protocol Corporate Accounting and Reporting Standard, The Scope 2 Guidance, The Corporate Value Chain (Scope 3) Accounting and Reporting Standard and The Technical Guidance for Calculating Scope 3 Emissions



5.2 Our climate targets

We are committed to reducing the emissions that are generated by our operations and value chain. In 2021, along with setting an approved Science Based Target, we set an even more ambitious target to reduce 100% of our Scope 1 and 2 emissions by 2022. Our voluntary target goes beyond the Science Based Targets initiative's (SBTi) suggested Scope 1 and 2 reduction target of 46% by 2030 to limit global warming to 1.5°C for small and medium-sized enterprises (SMEs) for a base year of 2019. We use a market-based approach to track our performance for Scope 2.²⁸ By using this approach we show our commitment to responsibly reducing our emissions through our purchasing decisions.

Furthermore, we committed to measure and reduce our Scope 3 emissions. Considering that the majority of our emissions come from Scope 3, we have also set voluntary Scope 3 targets. Since we are an SME, our Scope 3 targets cannot be approved by the SBTi, but we used the SBTi methodology to develop the target, focusing on our suppliers, business operations and downstream activities.



²⁸ More information on market-based approach can be found on Greenhouse gas Protocol Scope 2 Guidance

5.3 Our progress

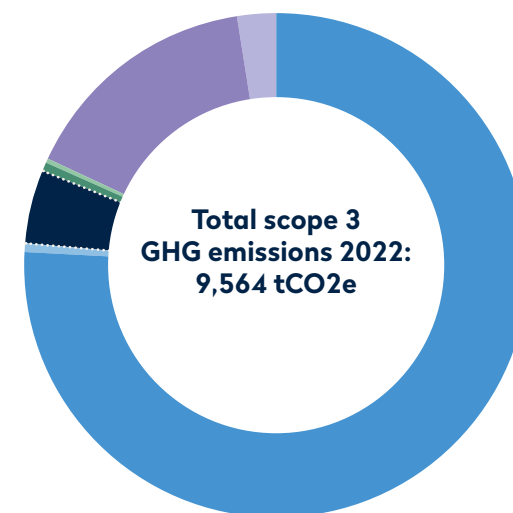
We achieved our target of reducing our Scope 1 and 2 emissions by 100% by the end of 2022.

In 2022, all of Fairphone's emissions were attributed to scope 3, which amounted to 9,564 tons of carbon dioxide equivalent (tCO₂e). Fairphone does not have scope 1 emissions and our scope 2 emissions amount to -14.33 tCO₂e, using the market-based approach for reporting. This means that Fairphone achieved a 120% decrease from our 2019 base year.

Our office is powered by renewable electricity — from solar panels on our building and from Dutch wind energy — making our emissions from purchased electricity zero. We reduced our remaining Scope 2 emissions from the natural gas-based heating system of our rented office space by purchasing Biomethane Guarantees of Origin (BGOs). Here, the reduction happens through the addition of green gas to the Dutch grid. The amount of green gas injected into the gas grid is equivalent to our gas consumption. The biomethane production from manure resulted in negative emissions due to the avoidance of emissions that would have occurred if the manure was left untreated.

We plan to work with our landlord to reduce the emissions of our building's heating system. Our ambition is to end fossil fuel use for heating entirely.

In 2022, 100% of Fairphone's GHG emissions were in scope 3

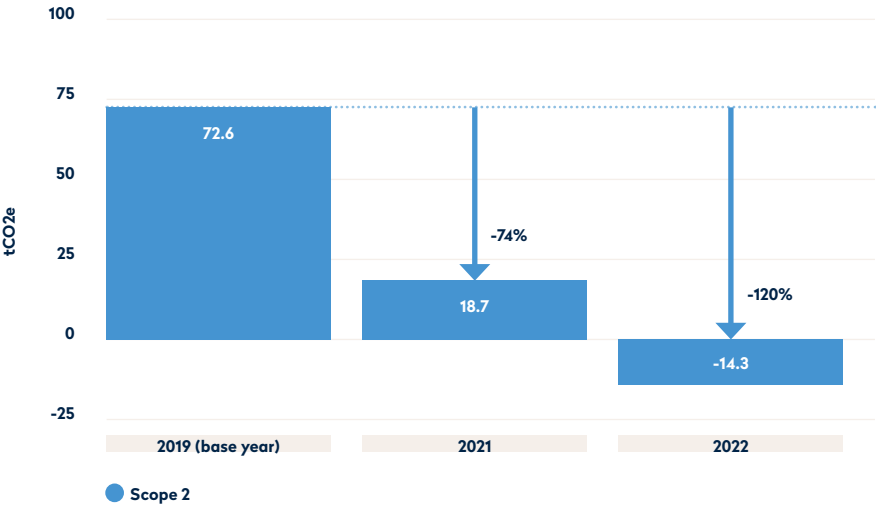


Share of scope 3 emissions per category



Reduction of Scope 2 emissions from 2019 to 2022

Our Scope 2 emissions have gradually declined since 2021 compared to 2019 as our base year. By 2022, we reduced 120% of our Scope 2 emissions, achieving our 2022 and SBTi SME targets.



Biomethane Guarantees of Origin (BGOs) are certificates that represent one megawatt-hour (MWh) of biomethane injected into the gas grid and can be used to claim the use of green gas. We purchased BGOs from [BioGem Express](#), a registered vendor from a certification authority of green gas in the Netherlands, called VertiCer. The biomethane gas is produced in a biogas plant in the Netherlands from waste-based feedstock — namely manure, agricultural waste and other residues.

5.4 Climate conscious

Fairphone's aim to hit our net-zero target by 2045 is ambitious. It will require collaboration with our suppliers, customers, and many stakeholders. To further maximize our impact through the products we bring to the market, we developed a "climate conscious" product proposition in 2022.

With this "climate conscious" proposition, we indicate that we have made our best efforts to decrease the impact of our product on global warming, without implying that the product has no footprint at all.

When a product is climate conscious, we mean that Fairphone does all it can to firstly avoid and secondly reduce its CO2 footprint throughout its lifecycle. An equal amount of the left over carbon emissions after our avoidance and reduction measures is then invested in carbon reduction projects that lower CO2 emissions.

In 2022, without a climate conscious product on the market, we already contributed to climate projects for our transport emissions inside and outside Europe via our transportation partners. These contributions equalled a reduction of 320 tons of CO2e. By contributing to such climate projects, we support the global effort to reduce emissions beyond our value chain.

IN MORE DETAIL, OUR CLIMATE CONSCIOUS PROPOSITION INVOLVES THREE PILLARS:

Avoiding emissions: By building our products to be repairable, last longer and by supporting them accordingly, we reduce the number of products that need to be manufactured, avoiding the most carbon-intensive part of most electronic products' life cycle.

Gold Standard®

Climate Security & Sustainable Development

Reducing emissions: By using recycled materials, we can reduce the emissions related to our products since we decrease the need for primary raw material production, which is usually much more polluting than the production of recycled materials. But while that might sound easy, it's hard to make a high-quality product from recycled materials. We put significant work into collaboration with our suppliers to find new avenues toward incorporating recycled materials and other ways to reduce emissions during production.

Contributing to climate projects: We invest in carbon reduction projects which are independently certified according to internationally recognized quality standards. Our contributions are based on the remaining amount of carbon emissions created throughout the lifecycle of the product, from production to shipping to use to waste management, as reported in our life cycle assessments.

For 2023 we decided to invest in two [Gold Standard](#)-certified projects that are reducing CO2 emissions while contributing to the communities around the projects: [EcoMakala-Virunga Green Energy project in the Democratic Republic of the Congo \(DRC\)](#) and [Improved Cookstoves for Social and Environmental Impact in Uganda](#). We chose these projects because they bring significant community benefits along with carbon savings, in line with our core value of caring for people and the planet. These projects create jobs, prevent deforestation of a vulnerable natural area, and help preserve the habitats of Africa's last remaining gorillas. The projects are also located in African countries in which we engage in fair mining interventions. [Gold Standard](#) only certifies emission-reduction projects that meet rigorous requirements for carbon reduction as well as making other contributions to the United Nations' Sustainable Development Goals.

6

Social and environmental Product Passports

Our commitment to social and environmental values is at the heart of everything we do. Our products have the power to drive positive change, so we design them with purpose. Our approach to consumer electronics challenges the industry to do better, using fair and recycled materials and initiatives that make a real difference behind the scenes.

Our Fairphone 4 and True Wireless Stereo Earbuds are two examples of how we're leading the way toward a fairer, more sustainable future for all. The following social and environmental passports highlight the recognition of the fair innovations in our products.

6.1 Fairphone 4

85/100 eco rating

Best in industry for sustainable electronics

5 years

warranty, software support and hardware support incl. spare parts availability

10/10 world leading repairability

50kg CO₂ Life cycle carbon emissions

(5 year usage time, incl. battery replacement)

\$2 (USD)

living wage bonus to factory workers

40% of fair materials

Recycled

Rare earths: 86%
Plastics: 60%
Magnesium: 51%
Zinc: 9%
Nickel: 6%
Copper: 2%
Tin: 50%

Fair mined

Tungsten: 99%
Aluminium: 98%
Gold: 100%

In progress

Indium, cobalt, lithium, silver

100% e-waste neutral

Fairphone 4 is the first e-waste neutral device on the market: we commit to reuse or recycle as many phones as we sell



6.2 True Wireless Stereo Earbuds (TWS)



100% fair gold

of which **10%** Fairtrade Gold integrated into supply chain, **90%** compensated by Fairmined Gold Credits

30% recycled plastics

Battery life optimized to

800 charging cycles

Supplier Development Program

to improve their social and environmental impact

100% e-waste neutral

For each pair sold, we offset its weight in e-waste

Spare parts available in our web shop

7

Fairphone's Industry Challenge

We said at the outset that we see the progress of our mission with a mixture of pride and disappointment. But that isn't from lack of effort on our part.

Every day we make the effort. Every day, we prove you can produce a more ethical phone for the additional cost of only one cup of coffee. Every day, we inspire people to make a better choice for a better today and a better future.

We want you, our industry colleagues, to step up, and to share in the pride we feel.

Pride in knowing that we can improve the lives of the thousands of people who build our phones. Pride in knowing that we're working as a team with millions of people globally to accelerate toward the UN's Sustainable Development Goals. Pride in knowing that we're doing everything we can to reduce our carbon emissions. Pride in knowing that our customers are our best champions, and that by choosing our brand, they're reinforcing a set of values that they want to see more businesses adopt.

In 2024, we'll be reporting on our tenth year of proving that solutions exist, and how we're working to create even more. We want next year's report to be brimming with news about how you, our industry colleagues, took up the Fairphone Industry Challenge.

CHECKLIST

ON E-WASTE AND CO2 AVOIDANCE

- ☐ Publish the Life Cycle Assessment of your flagship products.
- ☐ Report on the CO2 avoidance or surplus of CO2 generated in relation to the lifetime of your flagship products in comparison to the market.
- ☐ Compensate for 100% of the e-waste footprint of your flagship products.

ON LONGEVITY

- ☐ Ensure users can repair your hardware devices. (easy replacement of at least battery, screen, camera and speaker).
- ☐ Enable broader repair services beyond self-owned repair infrastructure.
- ☐ Aim to provide users with software updates for a minimum of 5 years.
- ☐ Enable users to choose their operating systems and software.
- ☐ Publish the source code of all drivers, tools and interfaces under a free license.
- ☐ Measure and report a longevity score for your flagship products.

ON FAIR MATERIALS

- ☐ Take full ownership for the products you bring to the market and establish fair sourcing practices.
- ☐ Go beyond accepting ASM conflict-free materials. 3TG (Tin, Tantalum, Tungsten & Gold) and use our Fair Material Roadmap to assess how you can source high impact materials* fairly.
- ☐ Report the % of high impact materials* you source in a fair or circular manner in your flagship products against the total volume of that material in your product.

ON FAIR FACTORIES

- ☐ Ensure workers in the supply chain earn a living wage and pay a product price that enables living wage and income.
- ☐ Co-invest with your strategic suppliers in improving working conditions including: environment, health, and safety; worker satisfaction; and worker representation.
- ☐ Apply our Fair Sourcing Principles to both your materials supply chain and the working conditions in your manufacturing and assembly plants.

* We selected 14 focus materials: gold, tungsten, tin, plastics, rare earth, aluminum, lithium, cobalt, nickel, zinc, magnesium, indium, silver, copper following a detailed assessment.



Appendixes

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Appendix 1: The scope of this report

We want you, our industry colleagues, to step up, and to share in the pride we feel. Pride in knowing that we can improve the lives of the thousands of people who build our phones. Pride in knowing that we're working as a team with millions of people globally to accelerate toward the UN's Sustainable Development Goals. Pride in knowing that we're doing everything we can to reduce our carbon emissions. Pride in knowing that our customers are our best champions, and that by choosing our brand, they're reinforcing a set of values that they want to see more businesses adopt.

In 2024, we'll be reporting on our tenth year of proving that solutions exist, and how we're working to create even more. We want next year's report to be brimming with news about how you, our industry colleagues, took up the Fairphone Industry Challenge. So, what didn't we address in this document, and why?

- **Suppliers' environmental (waste/ water) management:** On this topic we request our suppliers to follow industry standards. It is not an area where we are actively driving change.
- **Suppliers' due diligence:** Our suppliers' due diligence approach follows industry standards and is described in our [Fair Sourcing policy](#), Fairphone's [Way of Working Together](#) and the [Supply Chain Engagement Report](#). Our due diligence findings are reported in our Supply Chain Engagement Report. As these three documents can be easily accessed online, we don't report on them here.
- **Our supplier list:** Our supplier list is not included here as it is [available online](#).
- **Sourcing policy:** Our Fair Sourcing policy explains how, next to

standard due diligence, we select our focus materials and work with our strategic suppliers to create impact. As it is quite a long and detailed document, we decided to leave it out of this particular report.

- **Governance set-up:** As a company claiming to have a noble mission to change our industry, it is important to be transparent about how decisions are made and who "pulls the strings". In our audited annual accounts, to which we apply the Dutch GAAP reporting standard, we report this set up. We publish these accounts via the Chamber of Commerce, open for everyone who is interested.

What did we include and why?

- **Our outcome and impact KPIs:** Results and progress, as the backbone of our business and the main focus of this document.
- **Our greenhouse gas reporting:** Inventory and targets, in our eyes a necessity for future-proofing our industry.
- **Financial results:** As they are both crucial to Fairphone's health as a business, and as a proof-point of our business model.
- **Our team's composition and general well-being:** Fairphone's achievements are only possible thanks to our team, especially during this phase of our scale up, and we are careful to take the team's makeup and wellness into account.

Appendix 2: Calculations and explanations

CALCULATION EXAMPLE

E-waste prevented – resources spared through longevity of Fairphones

E-waste avoided (Longevity) [kg] = E-waste avoided (0.5 year old Fairphone 3&4) [kg] + E-waste avoided (1 year old Fairphones 3&4) [kg] + ... + E-waste avoided (Fairphone 2) [kg]

where:

a) E-waste avoided (1 year old Fairphones 3&4) [kg] = Phone purchases avoided * weight of phone [225g like Fairphone 4]

In 2022: = 3,104 phone purchases avoided * 0.225 kg
= 117 kg e-waste avoided

b) Phone purchases avoided [#] = Phone years saved / Avg. phone market lifespan

In 2022: = 8,381 phone years saved / 2.7 years per phone
= 3,104 phones

c) Phone years saved [yrs] = (% active '1 yr old' Fairphones - % active '1 yr old' phones market) * # of activated Fairphones in age group * age gain in reporting year [0.5 or 1]¹

In 2022 = (88% (FPs) - 74% (market)) * 60,699 FPs * 1 year = 8,381 yrs

CALCULATION EXAMPLE

CO₂e avoided due to longevity

CO₂e avoided [kg CO₂e] = Phone purchases avoided * CO₂e emissions of production and transport per device, newest LCA [kg CO₂e]

In 2022: = 24,010 * 37.54 kg CO₂e = 901,326 kg CO₂e

CALCULATION EXAMPLE

CO₂e avoided due to e-waste reduction

This KPI is derived from the sum of the CO₂e avoided through all of our different take-back programs. Per program, the avoided emissions are calculated as follows:

CO₂e avoided due to take back program X [kg CO₂e] = E-waste avoided due to take back program X [kg] * 8.8 [kg CO₂e/kg recycled]²

CALCULATION EXAMPLE

CO₂e avoided by integrating recycled materials in our products

CO₂e avoided (recycled materials) [kg CO₂e] = CO₂e avoided (recycled materials) Fairphone 3 [kg CO₂e] + CO₂e avoided (recycled materials) Fairphone 4 [kg CO₂e] + [...]

CO₂e avoided (recycled materials) Fairphone X [kg CO₂e] = Σ (weight of recycling focus material (*) contained in Fairphone model X [kg] * (% recycled of material (*) in Fairphone model X - % recycled of material (*) in Fairphone LCA) * CO₂e avoided from LCA [kg CO₂e/kg] * # of Fairphone model X sold)

¹ When reporting on a period of one year, either 0.5 for '0.5 year old phones' or 1 for all other age groups. A phone cannot gain more than 1 year of age during a reporting period of 1 year.

² Emission reduction through recycling of one kilogram of Fairphones = 1.67 kg CO₂e [positive CO₂ impact per recycled FP3] * (1 kg of phones / 0.190 kg [weight of FP3]) = 8.8 kg CO₂e/kg

Appendix 3: Annual GHG emissions report

GHG emissions by scope (tCO₂e)^{1,2,3,4}

	2019	2020 ⁵	2021	2022	Climate Targets
Scope 1⁶	N/A	-	N/A	N/A	<ul style="list-style-type: none"> • SBTi approved (SME route, base year 2019): reduction of 46% scope 1 and 2 emissions by 2030, measure and reduce scope 3 emissions
Scope 2					
Scope 2 (market-based)⁷	72.6	-	18.7	-14.3	<ul style="list-style-type: none"> • Voluntary target (base year 2019): reduction of 100% scope 1 and 2 emissions by 2022
Purchased electricity ⁸	72.6	-	0	0	
Purchased natural gas (heating) ⁹	N/A	-	18.7	-14.3	Both targets were achieved in 2022.
Scope 2 (location-based)	58.1	-	40.2	22.3	
Purchased electricity	58.1	-	21.5	14.5	
Purchased natural gas (heating)	N/A	-	18.7	7.6	
<i>Subtotal emissions (Scope 1 + 2 market-based)</i>	72.6	-	18.7	-14.3	

Scope 3^{10,11,12,13}					Voluntary target (base year 2022): <ul style="list-style-type: none"> • 100% of tier 1 suppliers set science-based target for Scope 1, 2 and 3 by 2025 • 30% of tier 2 suppliers set science-based target for Scope 1, 2 and 3 by 2030 • 60% intensity reduction of business operation and downstream activities by 2030
Category 1: Purchased goods and services	-	-	-	7,261.8	
Category 2: Capital goods	-	-	-	35.0	
Category 3: Fuel- and energy-related activities	-	-	-	4.3	
Category 4: Upstream transportation and distribution	-	-	-	469.7	
Category 5: Waste generated in operations ¹⁴	-	-	-	2.3	
Category 6: Business travel	-	-	-	47.7	
Category 7: Employee commuting	-	-	-	38.5	
Category 9: Downstream transportation and distribution	-	-	-	-	
Category 11: Use of sold products	-	-	-	1,462.3	
Category 12: End-of-life treatment of sold products	-	-	-	243.1	
<i>Subtotal emissions (Scope 3)</i>	-	-	-	9,564.6	
Total Scope 1, 2 and 3 emissions (market-based)	-	-	-	9,550.3	Reach Net Zero by 2045
Total Scope 1, 2 and 3 emissions (location-based)	-	-	-	9,586.8	

Notes GHG emissions by scope (tCO₂e)

- ¹ GHG emissions were calculated according to Greenhouse Gas Protocol standards and guidance, including GHG Protocol Corporate Accounting and Reporting Standard (Revised Edition), Scope 2 Guidance, the Corporate Value Chain (Scope 3) Accounting and Reporting Standard and the Technical Guidance for Calculating Scope 3 Emissions.
- ² GHG emissions were calculated based on an operational control consolidation approach in line with GHG Protocol Corporate Accounting and Reporting Standard.
- ³ We chose 2022 as the base year for our scope 3 accounting due to the most complete and recent data being available.
- ⁴ We calculated and reported emissions data in CO₂ equivalents (CO₂e). Moreover we used IPCC 4th Assessment Report (AR4) GWP100 values.
- ⁵ We reported on our emissions in 2021 for the first time and chose 2019 as a base year since the year before the Covid-19 pandemic was deemed more representative for our emissions than 2020.
- ⁶ Scope 1 emissions are not applicable to Fairphone as we do not own an office, production facilities, or vehicles.
- ⁷ Emission factors provided by suppliers were used for the market-based calculation.
- ⁸ Since 2021, we have used renewable electricity (solar, wind) in our office.
- ⁹ In 2022, our heating's natural gas consumption was offset using Biomethane Guarantees of Origin. The value is negative due to using manure as feedstock for the production of the biomethane. When left untreated, manure emits significant amounts of GHGs. Thus, treating manure for biomethane production avoids emissions that would otherwise occur, leading to negative emissions.
- ¹⁰ Scope 3 categories 'Upstream leased assets' (category 8), 'Processing of sold products' (category 10), 'Downstream leased assets' (category 13), 'Franchises' (category 14) and 'Investments' (category 15) are not applicable to Fairphone. Meanwhile, emissions for 'Downstream transportation and distribution' (category 9) are included in 'Upstream transportation and distribution' (category 4) since we purchase outbound transportation services.
- ¹¹ Several methodologies were used to calculate scope 3 emissions based on the Greenhouse Gas Protocol standards and guidance, including supplier-specific method (category 4 and 6), hybrid-method (category 1, 11 and 12), average-data method (category 3 and 5), distance-based method (category 4 and 7), and spend-based method (category 1, 2, and 6). Category 7 also includes emissions from homeworking which were calculated using [EcoAct Homeworking Emissions](#) methodology.
- ¹² In order to calculate scope 3 emissions, we mainly used data from our own internal activities such as purchasing data (Category 1, 2, and 6), energy consumption data (Category 3), mass of product and distance traveled per transportation mode (Category 4), waste generation data (Category 5), internal commuting and home working survey (Category 7), and sales data (Category 11 and 12) as well as from our value chain partners (Category 1 (13%), Category 4 (70%), Category 6 (50%). The quality data for all scope 3 categories are good based on the criteria according to GHG Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard.
- ¹³ We used emissions factors from our products' Life Cycle Assessment (Category 1, 11 and 12), national emission factor (Category 3, 5, and 7), supplier data (Category 4 and 6), [Global Logistic Emissions Council \(GLEC\) Framework](#) (Category 4), and Environmentally-Extended Input-Output (EEIO) databases from [Exiobase](#) and [US Environmentally Extended Input-Output \(USEEIO\)](#) (Category 1, 2, and 6).
- ¹⁴ Estimation based on waste bin capacity and frequency of emptying.

Appendix 4: Raw material use 2022

Focus material	Total focus material consumption (kg) in 2022**
Aluminium	3,204
Cobalt	2,359
Copper	2,633
Gold	6
Indium	0.0008
Lithium	2,594
Magnesium	823
Nickel	281
Plastics	3,758
Rare earth elements *	21
Silver	250
Tin	119
Tungsten	80
Zinc	199

*Neodymium, Praseodymium, Dysprosium

**DISCLAIMER: This sums up the 2022 consumption of 14 focus material for FP4, FP3, FP3+ based on Full Material Declarations. This does not include spare parts. In addition, we also included the gold used in our TWS (but not other materials, as we have not yet obtained a Full Material Declaration for the TWS). Data inaccuracies in the Full Material Declarations for FP4, FP3 and FP3+ are also still possible. We are continuously working with our suppliers to obtain more, and more accurate data on our material use and aim at improving our reporting on (focus) material consumption over time.

Appendix 5: Basis of reporting

Company Impact KPI - objectives

These indicators are based on Fairphone's theory of change (raise awareness, provide proof, and create followers) to measure Fairphone's impact created to mobilize the industry towards fairer electronics.

KPI 2: LONGEVITY SCORE

KPI unit of measure

Avg. lifetime of active Fairphones and avg. age when the user stopped using their Fairphones according to the share of overall Fairphones activated since January 2020, plus users' expected additional lifespan of their Fairphone (average over all users participating per survey). The survey responses are assumed to be representative for all at that moment in time still active phones sold since January 2020.



Key objective

To predict the average useful lifetime of Fairphones before the end of their lifetime by combining measuring the current actual lifetime (active phones), the average lifetime reached (inactive phones) and the by users additionally expected lifetime of their phone.

Key definitions

- **Active phone:** A Fairphone which has responded to the activity check from Fairphone's back-end within the last 29 days.
- **Activity check:** A signal which is sent from Fairphone's back-end once a week to the Activator App when Fairphone OS (Android) is used. The signal triggers a response signal from the phone if the phone can be reached. The phone can be reached when it is switched on and it is connected to the internet at the moment when the Fairphone back-end sends the signal to the Activator App. The Activator App is preinstalled on all Fairphones since 01-01-2020, thus starting from Fairphone 3.
- **Additionally expected lifetime:** The average value customers respond to the Longevity Question which is asked to Fairphone users using a Fairphone 3(+) or higher in a survey triggered by the MyFairphone app.

- **Actual lifetime:** The time between a Fairphone's activation date and:
 - a) If the phone is active: the last day of the quarter which is reported on
 - b) If the phone is inactive: its deactivation date.
- **Deactivation date:** The date on which a Fairphone responds to the activity check from Fairphone's back-end for the last time. Since the data collected in the weekly activation check is stored as active in 'week 1', 'week 2' etc. of a specific year, the last day of the week in which the phone responded is used as the deactivation date.
- **Activation date:** The date on which a Fairphone 3(+) or any following Fairphone model connects for the first time to the internet and sends an activation signal to Fairphone's back-end.

Boundaries of data

The Longevity Score represents all Fairphones starting from Fairphone 3 (released September 2019) on which we know that Fairphone OS (Android) is used. We want to gain insights into the Fairphones' lifetime when being used by consumers, therefore the score does not include phones on which potentially another OS has been installed since this prevents us from knowing if they are still active. Neither included are Fairphone 4 which are used as demonstration phones at our indirect sales partners' shops. The only group of phones which are not used by consumers but are included in the scope are Fairphone 3(+) demonstration phones since we are not able to identify these among the activated phones.

Key data sources

- Survey to Fairphone users via MyFairphone App
- Activation date and (in)active status of Fairphones collected in Fairphone's backend

KPI 3: E-WASTE NEUTRALITY

KPI unit of measure % of electronic end-of-use products taken back vs. new Fairphone 4 and Fairphone 4 modules sold.

Key objective To measure the outcome of our efforts to direct e-waste into responsible recovering processes in comparison with the e-waste we create through bringing new smartphones on the market.

Key definitions

- **End-of-use product:** A product, which is not used, regardless of the reason. Therefore, the end-of-use product or parts thereof can potentially be suitable for direct reuse, repair/refurbishment and remarketing or it serves as input for recycling.
- **E-waste:** An electronic device becomes e-waste once it has been discarded by its owner as waste without the intent of reuse.
- **Responsible recycling:** Responsible recycling means that companies processing the products fulfill environmental, safety, efficiency, and ethical standards at least comparable to the currently enforced legal requirements in the EU.
- **Take-back:** Take-back refers to activities which serve to physically absorb electronic end-of-use products in our logistics supply chain, in that of one of our contracted partners for repair, refurbishment, remarketing or recycling. A product is taken back as soon as the owner handed it over to Fairphone or a partner of Fairphone in a manner which cannot be reversed. Alternatively, a phone can be accounted for as 'taken back' when credibly declared by a customer to Fairphone as handed in at a third party which responsibly treats WEEE, motivated by Fairphone.

Boundaries of data

The take-back activities accepted to count into the indicator score differ per region.

Take-back in Europe:

Electronic end-of-use products which are:

- returned through Fairphone's Reuse and Recycle Program
- returned through take-back projects owned or under contract by Fairphone
- reported to Fairphone as handed in for reuse/recycling at a responsible collection point as a result of our efforts to motivate reuse and recycling. Responsible collection points are e.g., public recycling centers, shops of telecom operators, e-waste collection points in shops which are part of extended producer responsibility schemes
- returned through recycling programs of partners motivated by Fairphone's efforts (clear guidelines to avoid double counting of returned devices to be agreed on per partner and program)
- returned through Extended Producer Responsibility (EPR) Schemes to which Fairphone is obliged to pay fees in line with Directive 2012/19/EU on waste electrical and electronic equipment (WEEE Directive) for collection and recycling of the products sold in the European Market

Take-back in countries with insufficient formal recycling infrastructure:

E-waste which is diverted from informal recycling or landfilling in countries with insufficient formal recycling infrastructure and supplied to responsible recycling facilities.

KPI 3: E-WASTE NEUTRALITY

Take-back through as-a-service contracts:
Phones which are serviced through Fairphone or a partner of Fairphone. Since for these electronic products the ownership stays with Fairphone, customers are obliged to return their phone.

Phones and modules sold
The total amount of Fairphone 4 and Fairphone 4 modules sold in the respective year, regardless of its application (e.g., module upgrade, spare part). This does not include spare parts which are used to repair a phone at our repair center, since the faulty part is swapped, and no additional part is put on the market. Thus, no additional electronic component enters the market. Other models or products can be added to the scope, which will be made explicit in the target.

- Key data sources**
- Survey to Fairphone users via MyFairphone App
 - Activation date and (in)active status of Fairphones collected in Fairphone's backend

KPI 4: FAIR MATERIALS

KPI unit of measure Average % of # focus materials [in weight & separately measured] sustainably sourced by Fairphone [Fronrunner or Thought leader solutions] of device X.

Key objective To provide the example of sourcing fair materials to trigger the industry recognition and demand as a catalyst for investments needed to develop fair mined and post-consumer recycled materials.

Key definitions **Sustainably sourced:** is defined as (the amount of the) specified material that is used in the supply chain of the defined component and/or that supports a source or origin that has a specific social and/or environmental benefit and/or the supply chain is transparent and traceable to a certain extent (incl. book & claim, mass balance, physical integration).

Boundaries of data

Focus materials selected are based upon the results of a detailed Material Assessment. This resulted in the following list of focus materials (14) for our smartphone device.

1. Cobalt
2. Lithium
3. Copper
4. Gold
5. Tin
6. Tungsten
7. Rare Earth (incl. Neodymium, Dysprosium & Praseodymium)
8. Plastics
9. Silver
10. Indium
11. Zinc
12. Nickel
13. Aluminum
14. Magnesium

Key data sources

The material percentage is calculated based on the full material declarations (FMDs) collected from component suppliers. All collected FMDs are gathered and extracted as a Product Report, allowing for the filtering and aggregation of different material volumes and percentages. The FMDs are closely examined and verified by external sources.

Furthermore, proof of focus materials being sourced from sustainable sources is collected. As different materials have different sustainable sources the type of proof/data source differs and be in the form of third-party verification, self-declarations, partner reports.

KPI 5: FAIR FACTORIES

KPI unit of measure	% of strategic [Device X] suppliers that demonstrate X maturity level improvements, or a high level of maturity, on decent work.
Key objective	To set the example of advancing decent work and implementing social and environmental best practices at Fairphone's suppliers, both directly and indirectly contracted, with focus on strengthening worker-voice and representation and driving wages towards living wages.
Key definitions	<p>Device X: the most recent device that accounts for the majority of Fairphone's supply chain spend. Currently: Fairphone 4</p> <p>Strategic suppliers:</p> <ul style="list-style-type: none"> - The supplier performs the final assembly of the relevant device, or - The supplier supplies a key component of devices modules or its core. This includes the following components: speaker, camera, battery, display, vibration motor, Printed Circuit Board (PCB) and case (battery cover). <p>Decent work levels:</p> <p>We divided the work we do with suppliers into three themes:</p> <p>Level 1 Environment, Health & Safety (EHS),</p> <p>Level 2 Worker satisfaction and</p> <p>Level 3 Worker representation and living wages.</p> <p>Here, level 3 is the highest level of "fairness" and most challenging to achieve.</p>

Improvement on maturity level

An improvement is demonstrated when:

- The supplier is considered engaged with Fairphone and
- The supplier can provide evidence that actions have been performed aimed to advance on at least one level of decent work, in line with the plan agreed with Fairphone, and /or
- The supplier can provide evidence of improved results versus the baseline situation on at least one indicator for at least one level of decent work through audits, assessments, or surveys.

A point means the supplier has improved its maturity on a decent work level, by demonstrating at least one improvement.

High Maturity:

We count suppliers towards the KPI if they demonstrate a high maturity on two or more decent work levels, of which one must be a high maturity on Environment, Health & Safety.

KPI 5: FAIR FACTORIES

Boundaries of data

The KPI focuses on suppliers of "Device X" (Fairphone 4 currently), our programs with suppliers of other products or accessories are not counted towards the KPI Fair Factories.

Suppliers may score a maximum of one point for demonstrating improvements per decent work level per year, regardless of how many improvements were demonstrated on that specific decent work level in that year. A supplier may thus score a maximum of 3 points per year.

The time period will be based on the anticipated production cycle of the relevant device, which is normally 3 years, starting in the year in which mass-production starts.

All strategic suppliers who achieve maturity level improvements, or demonstrate high maturity, in the defined time period will be counted towards the KPI, regardless if the start of the improvement program was in the defined time period or before. The points will be accumulated for reporting during the defined time period for the device.

Key data sources

Evidence may include:

Action plans or roadmaps, in combination with:

- Reports on capacity building or coaching by 3rd parties, and/or
- Audits, assessments, worker surveys or self-assessments that have been verified by 2nd or 3rd parties, and/or
- Invoices, and / or
- Photo's, and / or
- Reporting by the supplier

KPI 6: INDUSTRY INFLUENCE SCORE

KPI # of points scored on industry players that adopt/apply one of Fairphone's Thought Leadership solutions beyond our supply chain – [accumulated, by points, counted only once per follower]

Key objective To drive Fairphone to develop scalable impact solutions that go beyond Fairphone's own supply chain and that create followers to trigger higher transparency, social and environmental performance in the industry.

Key definitions

- **Industry players:** are companies operating in the electronics industry, or other sectors relevant for the Thought leadership solution, or associations, institutions or organizations that relate to the extraction of raw materials, processing, manufacturing, retailing, repairing, recycling or certification of electronic devices and components.
- **Thought leadership solutions:** are programs, coalitions, methodologies, sourcing models or any other type of interventions developed, initiated or founded by Fairphone with the purpose to drive impact/increase fairness in its four impact areas: fair materials, fair factories, longevity and circularity. It is these interventions required to achieve our targets on KPI 2-5.
- **# of points scored:** The larger the size of the company, the bigger we expect the influence and impact to be. Therefore, points are allocated per size (market capitalization) of the company:

Market capitalization of industry player	Points
\$10b+ (Large Cap)	3
\$2b - \$10b (Mid Cap)	2
below \$2b (Small Cap), or companies those not listed on any stock exchange	1
Associations and other non-company actors/ institutions that become member of a FP founded program/ consortium or update a standard/policy with proof of company members that apply the solution	3, 2, or 1 ; depending on accumulated market size members as per left column

Note that the score of a follower is measured by its ultimate ownership. Therefore, if a company is fully owned by a publicly traded company, we look at the market cap of its parent company.

Boundaries of data

The scope of this indicator is not limited to the electronics industry but can include any industry sector as long as the actor can have significant influence on the impact areas and related ambitions Fairphone focuses on. Whereas electronics will be the key sector to influence, this could also include other industries, e.g. automotive, mining companies but also for example consultancy industry if the actor becomes a member of a consortium and/or contribute (through their own means) with their core services to the goal.

To accurately count the impact of followers, Fairphone counts at the level of individual follower, i.e., company. If multiple companies join the (membership-based) initiative/platform co-founded/established by Fairphone, this KPI calculates on the basis of each industry follower. If member companies of an initiative/platform/association non-founded by Fairphone adopt and apply a Fairphone solution, the accumulated market share of all members counts.

KPI 6: INDUSTRY INFLUENCE SCORE

Key data sources

- Proof of companies/associations adopting and applying Fairphone's thought leadership solution, such as becoming part of a Fairphone co-founded consortium (membership agreement), signing a contract/ agreement or letter of commitment to a program Fairphone started.
- Proof of an association/platform/initiative/standard updating its policy or standard following Fairphone's campaign or lobby and (part of) its company members applying the solution in their businesses.
- Proof that companies are following Fairphone's solutions and are adopting/applying a solution or changing their behavior/discourse/business practices following FPs example.
- Per industry player the capital is determined based on financial data derived from the respective annual reports

E-WASTE AVOIDED

KPI unit of measure	Tons of e-waste avoided; related to KPI 2: Longevity score and KPI 3: E-waste neutrality as well as other measures.	Boundaries of data	<ul style="list-style-type: none"> - Phone purchases avoided due to longevity - FP3 and FP4 (related to KPI 2) as well as FP2 - EU e-waste take-back (related to KPI 3) - E-waste take-back through WEEE fee payments (related to KPI 3) - E-waste take back from countries with insufficient formal recycling infrastructure (related to KPI 3)
Key objective	To demonstrate the avoidance of environmental impact in terms of e-waste, by facilitating and encouraging (fair)phone users to extend the usage time of products, to bring them back at their end-of-use, and by collecting e-waste in countries with insufficient formal recycling systems.		
Key definitions	<ul style="list-style-type: none"> - E-waste avoided: The electronic waste which is removed from the global economic system (i.e. taken back at its end-of-use) or prevented from entering the global economic system (i.e. through longer lifetimes of electronic devices which slows down the need for purchasing and producing new ones) due to the efforts undertaken by Fairphone. - Standard practices on the market: Practices by parties participating in the markets (e.g. consumer, manufacturer etc.) in which Fairphone is active; described by 3rd parties as standard, common, average or with similar words indicating applicability of the results to the majority of the described group. 	Key data sources	<ul style="list-style-type: none"> - Activation date and (in)active status of Fairphones collected in Fairphone's backend - Impact audit reports of earlier years - Jaeger-Erben, Melanie and Hipp, Tamina (2018). All the rage or take it easy - Expectations and experiences in the context of longevity in electronic devices. Descriptive analysis of a representative online survey in Germany. Obsolescence Research Group (Ed.), OHA texts 1/2018. - Life cycle assessment Fairphone 3 and Fairphone 4 - Data on Fairphone's take-back (see KPI 3)

CO2 AVOIDED

KPI unit of measure Tons of CO2e avoided; related to KPI 2: Longevity score, KPI 3: E-waste neutrality and KPI 4: Fair materials as well as other measures

Key objective To demonstrate the avoidance of environmental impact in terms of CO2e, by facilitating and encouraging (fair)phone users to extend the usage time of products, to bring them back at their end-of-use, by integrating recycled materials in the produced devices as well as other measures to reduce or avoid CO2e emissions.

Key definitions

- **CO2e avoided:** CO2 emissions or GHG equivalents reduced or avoided due to Fairphone efforts versus standard market practice.
- **Standard practices on the market:** Practices by parties participating in the markets (e.g. consumer, manufacturer etc.) in which Fairphone is active; described by 3rd parties as standard, common, average or with similar words indicating applicability of the results to the majority of the described group.

Boundaries of data

- Phone purchases avoided due to longevity - FP3 and FP4 (related to KPI 2) as well as FP2
- CO2e reduction through EU e-waste take back (related to KPI 3)
- CO2e reduction through e-waste take-back through WEEE fee payments
- Related to KPI 3: CO2e reduction through e-waste take back from countries with insufficient formal recycling infrastructure (related to KPI 3)
- CO2e reduction through recycled materials integrated in Fairphones produced as compared to using virgin materials (related to KPI 4)

Key data sources

- Impact audit reports of earlier years
- Jaeger-Erben, Melanie and Hipp, Tamina (2018). All the rage or take it easy - Expectations and experiences in the context of longevity in electronic devices. Descriptive analysis of a representative online survey in Germany. Obsolescence Research Group (Ed.), OHA texts 1/2018.
- Life cycle assessment Fairphone 3 and Fairphone 4
- Data on Fairphone's take-back (see KPI 3)
- Data on fair materials (see KPI 4)

PEOPLE BENEFITTING

KPI unit of measure The accumulated # of people directly or indirectly benefited by interventions and/or programs in which Fairphone was involved either in the fair materials, fair factories, or take-back impact areas.

Key objective To get a clear measure of the extent of the people that benefit directly and indirectly with the work Fairphone does across its supply chain in three mentioned impact areas. Ultimately, what we are aiming to achieve is a sustainable impact for the people in our supply chain.

Key definitions

- **Directly benefiting:** are all the people that are direct beneficiaries of an intervention and/or program where Fairphone is or was involved.
- **Indirectly benefiting:** are all the people that are indirectly beneficiaries of an intervention and/or program where Fairphone is or was involved.
Examples of these could be the immediate family members of factory workers that have received a living-wage bonus
- **Interventions and/or programs where Fairphone is/was involved:** are all programs and/or interventions set up under the fair materials, fair factories and take-back impact areas where Fairphone is a leader or a partner of. These might include financial and/or in-kind contributions by Fairphone (including time spent). These include interventions where Fairphone actively sources fair materials, projects, and programs where Fairphone has a degree of involvement.

Boundaries of data Data for this KPI only originates from interventions and/or programs in which Fairphone was involved either in the fair materials, fair factories or take-back impact areas.

Key data sources

- Reports by project partners on program activities
- Reports by manufacturing partners on total number of employees
- UN Household Size and Composition data

Appendix 6: Assurance statement

[View PDF online](#)

Independent Limited Assurance Statement to Fairphone B.V.

ERM Certification and Verification Services Limited ("ERM CVS") was engaged by Fairphone B.V. ("Fairphone") to provide limited assurance in relation to the selected information set out below and presented in the Fairphone Impact 2022 Report (the "Report").

Engagement summary	
Scope of our assurance engagement	Whether the 2022 data for the following selected disclosures are fairly presented in the Report, in all material respects, in accordance with the reporting criteria.
	Outcome KPIs <ul style="list-style-type: none"> KPI 2: Longevity score (Expected lifetime in years of activated FP3/+ and FP4) KPI 3: E-waste neutrality (% of electronic end-of-use products taken back vs. new FP4 and FP4 modules sold) KPI 4: Fair materials (Average % of 14 focus materials sustainably sourced) KPI 5: Fair factories (% of strategic suppliers who demonstrate improvements or high maturity) KPI 6: Industry influence score (Number of points scored on industry key industry players adopting Fairphone solutions (cumulative score 2017-2022)) Impact KPIs <ul style="list-style-type: none"> E-waste avoided (tons of e-waste avoided) CO2 avoided (tons of CO2e avoided) People benefitting (Additional number of people benefitting from Fairphone interventions and programs (cumulative number 2017-2022))
	Our assurance engagement does not extend to information in respect of earlier periods or to any other information included in the Report.
Reporting period	1 January 2022 – 31 December 2022
Reporting criteria	Appendix 5: Basis of Reporting
Assurance standard and level of assurance	We performed a limited assurance engagement, in accordance with the International Standard on Assurance Engagements ISAE 3000 (Revised) 'Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Standards Board.
	The procedures performed in a limited assurance engagement vary in nature and timing from and are less in extent than for a reasonable assurance engagement and consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.
Respective responsibilities	<p>Fairphone is responsible for preparing the Report and for the collection and presentation of the information within it, and for the designing, implementing and maintaining of internal controls relevant to the preparation and presentation of the selected information.</p> <p>ERM CVS' responsibility is to provide conclusions to Fairphone on the agreed scope based on our engagement terms with Fairphone, the assurance activities performed and exercising our professional judgement. We accept no responsibility, and deny any liability, to any party other than Fairphone for the conclusions we have reached.</p>

Our conclusion

Based on our activities, as described below, nothing has come to our attention to indicate that the 2022 data for the selected disclosures listed under 'Scope' above are not fairly presented in the Report, in all material respects, in accordance with the reporting criteria.

Our assurance activities

Considering the level of assurance and our assessment of the risk of material misstatement of the selected information a multi-disciplinary team of sustainability and assurance specialists performed a range of procedures that included, but was not restricted to, the following:

- Assessing the appropriateness of the reporting criteria for the selected disclosures.
- Interviews with relevant staff to understand and evaluate the relevant management systems and processes (including internal review and control processes) used for collecting and reporting the selected disclosures.
- A review at corporate level of a sample of qualitative and quantitative evidence supporting the reported information.
- An analytical review of the consolidated 2022 data for the selected disclosures which included testing the completeness and mathematical accuracy of conversions and calculations, and consolidation in line with the stated reporting boundary
- Reviewing the presentation of information relevant to the scope of our work in the Report to ensure consistency with our findings.

The limitations of our engagement

The reliability of the assured information is subject to inherent uncertainties given the available methods for determining, calculating or estimating the underlying information and the dependence on partner organisations to provide performance information for some of the selected disclosures. It is important to understand our assurance conclusions in this context.

Our independence, integrity and quality control

ERM CVS is an independent certification and verification body accredited by UKAS to ISO 17021:2015. Accordingly we maintain a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. Our quality management system is at least as demanding as the relevant sections of ISQM-1 and ISQM-2 (2022).

ERM CVS applies a Code of Conduct and related policies to ensure that its employees maintain integrity, objectivity, professional competence and high ethical standards in their work. Our processes are designed and implemented to ensure that the work we undertake is objective, impartial and free from bias and conflict of interest. Our certified management system covers independence and ethical requirements that are at least as demanding as the relevant sections of Parts A & B of the IESBA Code relating to assurance engagements.

The team that has undertaken this assurance engagement has extensive experience in conducting assurance on environmental, social, ethical and health and safety information, systems and processes, and provides no consultancy related services to Fairphone in any respect.

Other Matters

We have provided Fairphone with a separate management report with our detailed (non-material) findings and recommendations.



Gareth Manning
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21 April 2023

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FAIRPHONE

Change is in your hands

Colophon

Fairphone's Impact '22
Change is in your hands

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