We're

here

We're here and we're here to stay

FAIRPHONE

Contents

Dear Reader

If you ask me how I define myself, 'entrepreneur' is not the first word that comes to mind. I'm a maker. A designer. A campaigner. A creative. Somebody who takes stuff apart to figure out how it works, and then finds ways to make it better.

Entrepreneurs are people with nerves of steel. People who can make an endless string of decisions, large and small. Resilient people who keep getting back up, no matter how many times they are knocked down. When I first started Fairphone, I wasn't sure that I had any of these qualities. But when you're passionate about something, you're willing to learn on the job.

Over the past five years, I've certainly learned a lot about how to set up a company. Fairphone isn't just any company. With everything we do, and every decision we make, we need to balance our desire of creating a better world with the realities of running a business.

Looking back, I say that our approach was like attempting to build a plane while flying it at the same time. In the span of just a few years, we successfully built a community, created two generations of phones and made impressive supply chain improvements. As our business gained momentum, we plowed full-speed ahead and invented, implemented, and quickly patched whatever wasn't quite working. That worked for a while, but at a certain point, it became clear that quick fixes weren't the way to build a sustainable company.

So in 2016 and 2017, we took a hard look at what we wanted to achieve, and began figuring out how to restructure our processes to support our success as we continue to grow. The key takeaway was that while our mission and vision hadn't changed, we needed to focus more on the business side of the equation. Because if our business isn't in order, there's no way we can make a positive impact on our industry. Transitioning a business from startup to scale-up can be a daunting process. It feels a lot like my awkward teenage years — filled with mood swings and growing pains, and plenty of adjustment issues. But as a team, we face our challenges head on and do what is necessary to become a healthier business.

So what were some of the defining moments of our evolution in 2017?

There's no denying it: we had some rough moments on the product side. The primary issue was related to the availability of individual components, leading to major production delays and lots of waiting for Fairphone owners. While we sold out of everything we produced, the total sales number was lower than hoped. Unsurprisingly, these challenges had a direct impact on our finances. Thanks to a round of investments from existing shareholders and new impact investors (including Pymwymic and the DOEN Foundation) totalling €6.5 million, we got the financial breathing room we needed to start making progress on our business goals.

One of the immediately visible improvements was in our company's governance. When we started Fairphone in 2013, we had just five employees. By the end of 2017, we were up to 65. In the years between, teams grew and evolved, people came and went, responsibilities shifted, and my leadership skills were put to the test. One thing was certain: I couldn't keep leading Fairphone on my own. I had to spread the weight of running a company across a larger team. So in 2017, we began creating a stronger, more professional structure for the company, including hiring Eva Gouwens as Managing Director and installing a supervisory board and workers' council.

These changes and improvements will help us do a better job of focusing on our mission: making electronics fairer for everyone involved. In 2017, besides moving forward on complex projects like cobalt and gold sourcing, we published an impressive selection of research, including an in-depth study of the materials found in our phones, research on the best way to recycle the Fairphone 2, and investigating new sales models. And the launch of our new camera modules was a particularly high point, marking the first time in smartphone history that owners could upgrade a core function of their phone by themselves — proving that the Fairphone 2 is indeed the first phone that gets better with age.

Together with our team and supervisory board, we developed six key performance indicators (KPIs) that reflect our ambitions as a social enterprise. It was an intensive process that required us to rethink some assumptions and reflect on what our core efforts should be. For an external perspective, we worked with consultancy firm Sustainalize to review our thought process and methodology. The resulting figures cover everything from phone sales and recycling rates to industry influence and direct beneficiaries. Now and in the future, they will serve as reminder of our vision, a benchmark of our progress, and a gauge to show us where we need to improve.

Which brings us to the document you're reading right now — Fairphone's first impact report. Until now, we've never compiled a comprehensive report on our achievements. While we've measured individual activities in the past, this is the first time we've categorized the information into a few key areas, collected supporting data, and translated it into an accessible document.

We want to pull back the curtain and show you what it takes to run a business with a social mission — warts and all.

We want to pull back the curtain and show you what it takes to run a business with a social mission — warts and all. We want to share our financial details, our achievements, and the dilemmas we face on a daily basis. We want to be transparent with our community, while holding ourselves accountable. Finally, we want to properly document our journey — because in an industry that's always moving forward, sometimes it's important to look back.

Whether you just skim the headlines or dive into the articles in depth, I'd like to thank you for your interest in Fairphone and what we're trying to do. I hope you put down this report feeling inspired — or at least informed — about how we're strengthening the foundations of our company to make a greater impact.

With gratitude,

Bas van Abel

Our Company

We believe in a better way of doing business

Our vision is a fair economy. We foresee a world where consideration for people and the environment is a natural part of doing business. Together, we're building momentum to design a better future.

To create a fairer economy, we started by making a phone. We uncover production systems, solve problems and use transparency to invite debate about what's truly fair. Our expanding platform gives a voice to people who care about social and environmental values.

By establishing a viable market for ethical consumer electronics, we're motivating the entire industry to act more responsibly.

We are Fairphone

The Fairphone story

...to making phones

After a couple years of campaigning, Waag Society's Creative Director Bas van Abel realized that raising awareness isn't the same as creating alternatives. Drawing on his background as a designer and maker, he knew that making a phone was the best way to understand the issues and influence change. To improve the electronics industry, he had to become a part of it.

In 2013, he founded Fairphone: a social enterprise determined to make phones in a way that was better for people and the environment. The Fairphone 1 was launched in December 2013, followed by the Fairphone 2 in December 2015. Step by step, the company continues to work towards its mission of creating fairer electronics, developing new relationships between people and their products, and showing the rest of the industry what's possible.

From conflict minerals...

In 2010, Waag Society partnered with ActionAid and Schrijf-Schrijf to spread the word about conflict minerals in consumer electronics. A small team traveled to the Democratic Republic of the Congo (DRC) to experience firsthand the mining conditions there. Back in the Netherlands, they shared what they learned with consumers to help people see — and better understand — the minerals inside their phones.

Highlights in Fairphone history

September 2009
We start a petition against conflict minerals.
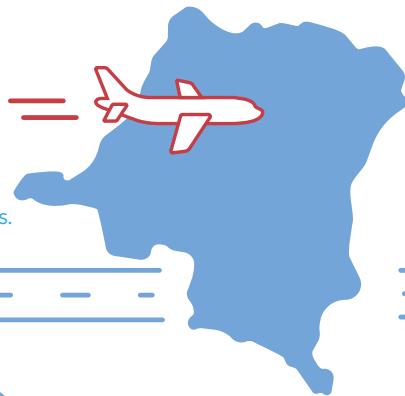
February 2011
A fact finding mission visits the Democratic Republic of the Congo, meeting with miners to listen to their ideas for improvements.

October 2012
We decide to take the plunge into making phones. We post a sign-up list on our website to see who would be interested in buying the first Fairphone.

January 2013
We partner with Conflict Free Tin Initiative and Solutions for Hope for conflict-free tin and tantalum.

With a €400,000 investment we become a social enterprise.

February 2014
Together with Closing the Loop, we start an e-waste recycling project in Ghana, collecting 75,000 scrap phones for safe recycling.
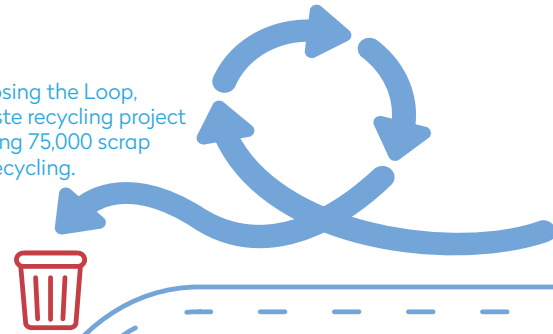
Mid November 2013
We're stunned when all 25,000 phones sell out. We deliver this first batch and create a subscription list to gauge interest for a se-cond batch of Fairphones.
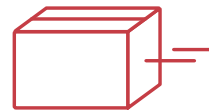
May – June 2013
We start a pre-sales campaign to fund the production of the first phone. 20,000 wonderful people invest €325 and their trust in Fairphone — a company that has never made a phone before.
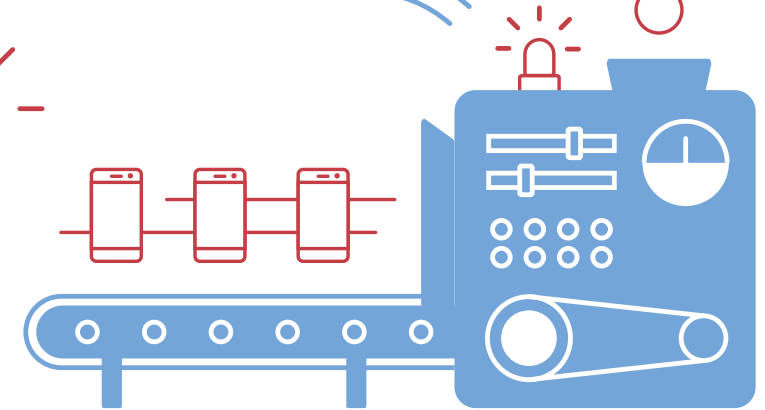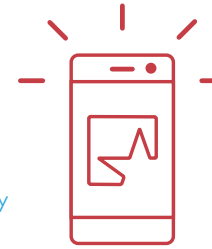
May 2014
In China, we establish a Worker Welfare Fund with our Fairphone 1 production partner, Guohong.

May 2015
Fairphone is now a Certified B Corporation. B Corps are for-profit organizations that meet a high standard of social and environmental performance, transparency and accountability.

Certified B Corporation

July 2015
The Fairphone 2 is available for pre-order in our online shop! As a community-backed initiative, we're excited to show that there's a strong demand for fairer electronics.

January 2016
Fairtrade certified gold is incorporated into the Fairphone 2 supply chain, after two years of work.

October 2016
We launch pre-orders for the re-freshed Fairphone 2. The new cover design and color selection reflect our second step for long-lasting design: customization. The Fairphone 2 is the first smartphone to receive the Blue Angel certification.
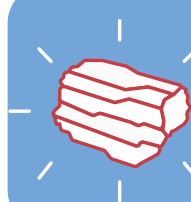
June 2016
By incorporating conflict-free tungsten, we now have traceable supply chains for all four internationally recognized conflict minerals: tungsten, tin, tantalum and gold.

April 2016
We publish an open version of Android for the Fairphone 2 to increase transparency, longevity and ownership.

March 2016
As Fairphone grows, we start partnering with other businesses across Europe to expand our distribution.

April 2017
Android 6.0 Marshmallow is now available for the Fairphone 2. The upgrade improves functionality, security and battery life.

July 2017
Fairphone comes to a heartbreaking conclusion: We can't restock parts for the Fairphone 1 and have to stop supporting our first phone.
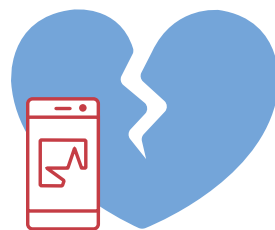
September 2017
We introduce two brand new camera modules! The Fairphone 2 is now the first smartphone with an upgradeable core function.
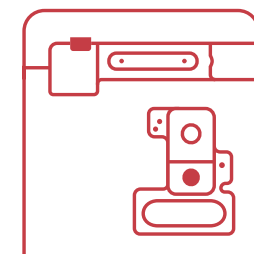
With new investment we grow our staff to over 65 Fairphoners, and increase our ambition for the Fairphone mission.

Join the movement and help contribute to a fairer future.

Fairphone is
a social enterprise

Fairphone is a certified B Corporation

From the beginning, we've structured Fairphone as a social enterprise to use our business as a force for good. Social entrepreneurship means that we're employing commercial strategies to enable social and environmental improvements.

Certified B Corporations are for-profit organizations that meet a high standard of social and environmental performance, transparency and accountability. You could compare it to a Fairtrade or organic certification, but for an entire company, as opposed to a single product.

This internationally recognized certification is overseen by B Lab, an independent non-profit organization. There is a consistent set of parameters used to evaluate all potential B Corps, and once a company has been certified, it must be reviewed every two years to ensure it still qualifies. Their rigorous assessment process covers everything from our high-level ambitions and business practices to very specific details like employee benefits and even the type of cleaning products we use. In June 2017, two years after earning our initial B Corp certification, we were recertified by the B Lab.

To date, more than 2,500 companies have become certified B Corporations to show that they are using their businesses to address social and environmental issues. Being part of this select group gives us the opportunity to share inspiration and best practices, and potentially find new partners to help us further our objectives.

Fairphone is part of a community of change-makers

Fairphone's aim of making fairer, more responsible electronics is backed by a range of independent memberships of relevant organizations, including:

B-Corp
Circle Economy
Clean Electronics Production Network
Dutch Agreement for Responsible Gold
European Partnership for Responsible Minerals
MVO Nederland
Responsible Minerals Initiative
Social Enterprise NL
UN Global Compact
Voor de Wereld van Morgen

Meet the Team

Behind every Fairphone, there's a motivated team that's striving to make a difference

2017 Team at a glance

Oldest employee: 49

Youngest employee: 21

65 Regular employees

+

3 Interns

24 People joined

18 People left

33 Female

35 Male

Management team
4 female + 2 male

35 Job openings

with an average of **72** applicants for each

3 Interns became full-time employees
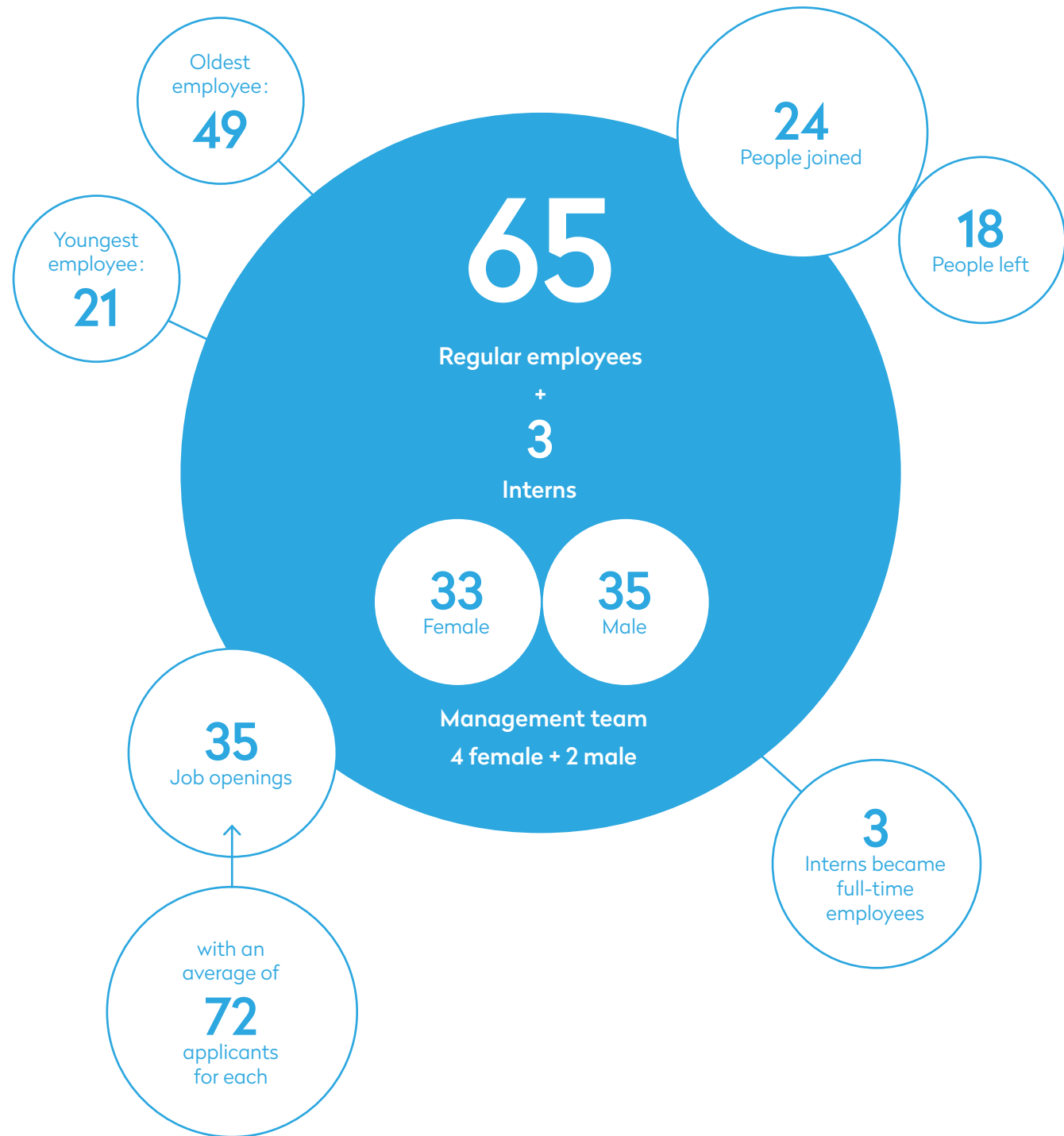
* All figures are as of 31 December 2017

We come from:

We all work in Amsterdam (except for one employee in China and one in Singapore).

What's it like to work at Fairphone?

- Running, yoga and bootcamp keep our muscles as fit as our minds
- In-house bike repairs ensure our two-wheelers are in top shape
- Kilos of homemade hummus keep our protein levels up
- Our international team ensures lots of fun conversations and unusual office snacks
- Dutch classes help us have a gezellig time with other Amsterdammers
- Making an impact across the globe keeps us inspired every day

Fairphone governance structure

Who owns Fairphone?

To understand Fairphone's ownership structure, you need to take a trip down memory lane. It all starts with Fairphone's origins as an awareness campaign about the use of conflict minerals in consumer electronics. Supported by ActionAid and SchrijfSchrijf, this campaign sprung up within Waag Society, a foundation that focuses on using emerging technologies as instruments of social change.

Waag aims to bring its most relevant concepts to market through its sister organization, Waag Products BV, a social impact incubator. So when Fairphone decided to transition from a campaign to a company, it was only natural that we would be supported by Waag Products — our founding investor. The financial support from Waag Products was quickly followed by funding from Nomis Beheer en Beleggingen BV — a seed investor closely connected to Waag Products. At around the same time, Bethnal Green Ventures (BGV) accepted Fairphone into their accelerator program for tech startups with a social mission, and received shares of the company in return. Finally, some of Fairphone's team members also have shares in the company — either directly, like founder Bas van Abel, or indirectly, through certificates in Waag Products.

In 2016, we began looking for additional investors. But we didn't want just anyone: we were interested in impact investors — individuals and organizations who want to generate benefits for society alongside profits. Our search led us to our first external equity investment from impact investor Phalanx Capital Holdings BV. And in 2017, we were very pleased to welcome two new impact investors: Pymwymic and DOEN Participaties.

10%
Others
employees,
other individuals and
Bethnal Green Ventures
LLP

6%
Eso Es BV
owned by
Bas van Abel

7%
Doen Participaties BV

10%
Nomis Beheer en Beleggingen BV
founding impact/seed investor,
connected to Waag Products BV

16%
Pymwymic's Stichting Healthy Ecosystems Impact Fund
represented on the supervisory
board by Rogier Pieterse

31%
Waag Products BV
founding organization, connected
to Waag Society

20%
Phalanx Capital Holdings BV
represented on the supervisory board
by Anthony Tabatznik

Founding investors   Joined in 2016   Joined in 2017

Note: For the sake of clarity decimals have been rounded up to whole numbers.

Growing up and moving on

Fairphone began in 2013 with five employees. By the end of 2017, we had grown to a team of 65. As is to be expected, this evolution was not without its growing pains. While the company developed, our HR needs and processes developed too. It meant the shifting of roles and responsibilities, lots of hellos and goodbyes, and lessons learned the hard way. These experiences made us realize we needed to expand in a more controlled fashion. In 2017 we took significant steps to create a stronger, more professional structure for the company, including hiring a managing director, installing a supervisory board and electing a Workers' Council.

Managing Director Eva Gouwens

2017 was a year of change and growth. For the company as a whole, this meant improving our business operations and expanding our team. From account management to customer support, we added experienced, motivated employees to nearly every department. But our most anticipated hire of the year came at the highest level: in September 2017, Fairphone hired a managing director to join CEO Bas van Abel on the executive board.

Prior to joining Fairphone, Eva Gouwens headed up a fellow B Corporation with exemplary fair credentials: Tony's Chocolonely. As their former "First Lady of Chocolate", she not only has great taste, but she also comes with a deep understanding of how to successfully lead a growing social enterprise.

Supervisory Board

The supervisory board, finalized in 2017, plays an important role in protecting the interests of the company and its social mission. It guides and monitors the executive board's performance towards the mission and helps provide continuity for the company.

Workers' Council

In June 2017, Fairphone staff elected their first-ever Workers' Council. From a pool of eleven talented and enthusiastic candidates, five were voted in as the founding members of our council — affectionately known as the WoCo.

The WoCo represents the interests of all the employees at Fairphone. The council's mission is to contribute to a fair, productive and fulfilling work environment. Besides providing a neutral place for employees to share their ideas and concerns, they also give input to the executive board on organizational matters that may affect employees and their work.

After being established, the WoCo spent the remainder of 2017 participating in trainings, delegating roles and getting the core structure in place. Their first major assignment was advising on the recruitment of the new managing director in August — a challenging task and clear indicator of the WoCo's influence.

Right: Adminstrators calculating the value of mined tungsten, Rwanda.

The Business Case

For Fairphone, making the world a better place starts with a viable business model.

From start-up to scale up: Fairphone's evolution from 2013 to 2017

2013

Small-sized
(5 employees starting in January 2013)

→

Never made a phone before

→

25,000 phones sold

→

Pre-sales only online through Fairphone.com

→

2017

Medium-sized
(65 employees end of 2017)

Have made and sold two generations of Fairphones

135,000 phones sold
(including both Fairphone 1 and 2)

Widespread European distribution network with 226 points of sale
(online and offline combined)

The backbone of our business model

Why we sell phones

We don't want people to buy new phones. We want them to keep using the phones they have (Fairphone or not) for as long as possible. But since we know they will buy phones anyway, we want to sell them a fairer phone. Here's why:

The more phones we sell…

The more we **show there's demand** for more ethical phones.

The more we **prove our business model**, gain respect in the industry, and embolden like-minded people in other companies and organizations.

The more **negotiating power** we have with suppliers and manufacturers to get their help with improving working conditions and sustainability.

The more **we can invest** in social improvements, worker satisfaction and the communities linked to our supply chain.

The more we **learn about how our industry works** so we can better challenge it.

The more we can **improve our phones and services** so people can use them longer (and buy new ones less often).

The more Fairphone owners there are, **starting conversations** about the fairer world we all want, and growing the movement with us.

Every Fairphone sold contributes to our ambitions for a more ethical electronics industry.

Who buys Fairphones?

Get to know our market

Every year, our community of Fairphone owners keeps growing! New partnerships help us offer individuals and business customers an increasing number of options for finding our phone throughout Europe. Here's an explanation of who buys our phones:

- B2C: Business to Consumers. We sell phones directly to individual consumers through our website.

- B2B: Business to Business. We supply phones to a variety of business customers, including:
  — Institutional/procurement: Companies and organizations purchasing phones for their employees
  — Resellers/distributors: Companies that sell our phone to consumers or businesses as part of a wider product selection
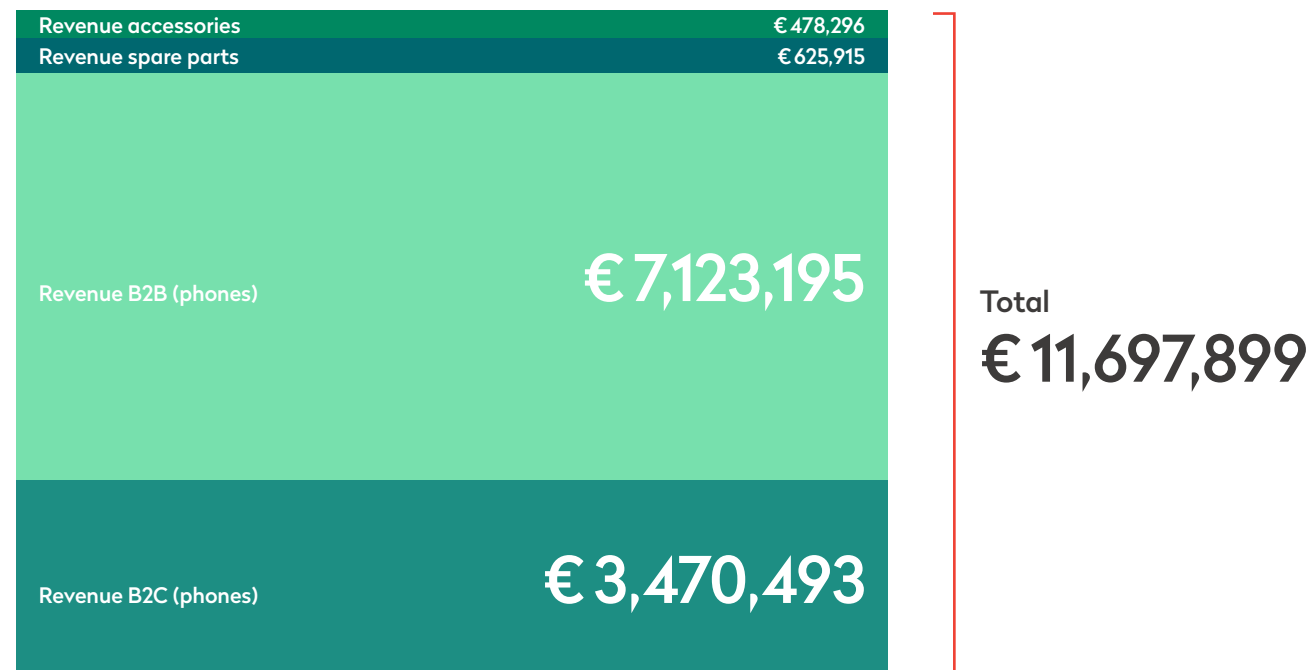 — Operators/Mobile Virtual Network Operators (MVNOs): Companies that sell our phone to consumers or businesses, often including a service contract

Revenue from product sales in 2017

Revenue accessories	€ 478,296
Revenue spare parts	€ 625,915
Revenue B2B (phones)	€ 7,123,195
Revenue B2C (phones)	€ 3,470,493

Total
€ 11,697,899

Growing our market with a limited supply of phones

2017 sales challenges and achievements

One of the unifying themes of 2017 was growth. This applied to the company as a whole, but especially to our goals for increasing sales and reaching new markets. While moving closer to profitability was certainly one of the motivators, at a higher level, our sales goals were directly tied to proving that the Fairphone 2 is a viable choice for mainstream consumers, increasing demand for ethical products, and expanding our impact.

However, the realities of running an industry-changing business meant we faced continuous challenges that stood in the way of reaching our sales ambitions. Our biggest issue in 2017 can be summed up in one word: production. From quality issues with components and suppliers running out of parts to unexpected pauses in manufacturing, we struggled all year long to keep the Fairphone 2 and spare parts in stock. This meant we were unable to offer a consistent supply of products through our own online store or through our various partner channels. In turn, our lack of inventory also led to delivery delays and plenty of disappointed customers. Finally, it forced us to make tough decisions about how to allocate our limited stock among our online store, our sales partners and our repair center.

Online sales show potential for new and existing products

While production and stock issues meant our online sales figures were lower than projected in 2017, we managed to sell 9,545 phones via our webshop to new customers who patiently stood by us through frequent delivery delays. During the periods when the phone was unavailable, 35,000 visitors signed up to receive alerts when the phone was back in stock — proving that consumer demand is still strong. Finally, the new, upgraded camera modules were a major hit with existing Fairphone 2 owners.

Huge promise for expanding our business market

Inconsistent inventory also posed a major challenge for our business-to-business sales partners, which includes operators, resellers and distributors, as well as other business buyers (procurement). In total, we sold 17,314 through these channels in 2017, (which represents a 29% increase compared to 2016), but the potential was far higher. Regardless, there were still lots of reasons to celebrate in 2017. Thanks to a new partnerships with Mobilcom-Debitel (end of 2016) and Orange France (2017), we increased our year-on-year operator/MVNO sales by more than 50%. Reseller sales increased by 25% thanks to new partners including Belsimpel in the Netherlands and MediaWorld in Italy. In addition, 29 companies and organizations added the Fairphone 2 to their portfolio of company phones for employees in 2017.

In summary, 2017 showed us that there is certainly sufficient demand for fair electronics and there are promising opportunities to keep expanding our market. But in order to reach our true potential, we need to keep striving to resolve the production issues that are holding us back.

External funding helps Fairphone scale up

In the long run, Fairphone aims to finance the company's activities with the sales of our phones. However, during our current phase of rapid growth, we also need the support of external funding. The funding we received in 2017 can be split into two types: investments that support the operational side of our business, and investments for specific impact projects.

From bank loans to venture capital, there are a variety of options available when it comes to financing a growing business. However, as social entrepreneurs, we prefer to seek out investors who feel connected to what we're trying to achieve. In 2017, we were pleased to receive funding from impact investors who share our vision of generating social and environmental benefits alongside profits.

2017 company-wide investments: €6.5 million

In March, existing shareholders provided €3 million in funding. We were fortunate to also attract new like-minded investors in 2017 who provided an additional €3.5 million in September.

A big share of the investments came from the generous commitment of two impact investing pioneers, Pymwymic and DOEN Foundation.

Pymwymic (the Put Your Money Where Your Meaning Is Community) is Europe's oldest impact investing group. In 2016, the group created the Impact Investing Cooperative to bring together wealthy individuals and families who want to make a positive impact. Its first thematic sub-fund, 'Pymwymic Healthy Ecosystems Impact Fund', focuses on disruptive and innovative business models that restore and conserve our ecosystems. In 2017, they selected Fairphone to be the recipient of their very first investment.

We also received funding from DOEN Participaties, the investment fund of the DOEN Foundation. Established in 1991, the organization is focused on supporting initiatives that are working towards a green, socially inclusive and creative society. The DOEN Foundation also played a role in Fairphone's initiation, providing capital to help us transition from an awareness campaign to a company in 2013.

Both these investments were vital in helping us kick off our latest growth phase.

Part of the funding is being used to keep reaching new audiences to increase the awareness of, and demand for, fairer electronics. Specifically, we have been working to expand our distribution network in Europe to respond to a growing interest from mainstream commercial channels like operators, resellers and business-to-business procurement.

The investments will also enable us to scale up our production volumes, which will give us more leverage with suppliers and therefore more opportunities to negotiate a healthier, more future-proof supply chain. It will place us in a better position to put our principles into practice, including improving the availability and lifespan of spare parts, sourcing fairer materials and improving working conditions. And besides producing our existing devices, it gives us the financial space to continue developing new ones.

Finally, from the operational side of things, the investments were used to further professionalize and expand our team.

2017 project-specific investments

In 2017, Fairphone also received external funding for two specific impact-related projects:

The Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland, or RVO) pledged a total of €405,610 to a consortium of organizations including Fairphone, UNICEF, Solidaridad, Fairtrade Foundation and Hivos, coordinator of Stop Child Labour. In 2017, the RVO allocated €19,637 to Fairphone. This investment is supporting the set up of a responsible gold supply chain in Uganda. The resulting gold will be incorporated into Fairphone's supply chain and the wider electronics industry.

Fairphone also received €27,850 from the European Commission to support our participation in a program called SustainablySMART (in full: Sustainable Smart Mobile Devices Lifecycles through Advanced Redesign, Reliability, and Re-use and Remanufacturing Technologies). By sharing lessons learned and providing samples phones, we're contributing to optimizing the design, production and recycling of consumer electronics.

External funding received in 2017

Funders	Investment type	Amount €	Purpose
Existing shareholders	Equity	3,000,000	Growth
New shareholders	High equity	3,500,000	Growth
Netherlands enterprise agency (RVO)	Project subsidy	19,637	Responsible gold supply chain
European Commission - SustainablySMART	Project subsidy	27,850	Sharing product and design learnings

Reaching new markets with like-minded partners

When we started selling our first phone in 2013, the Fairphone website was our primary sales channel. However, since the launch of the Fairphone 2, we've been expanding our sales channels to grow the overall market for fairer electronics — because we believe strong customer demand is an important driver for other electronics manufacturers to follow our lead. We also want to show that our phone isn't just a niche product, but fits perfectly in mainstream commercial environments.

Our ever-expanding network of resellers, operators, mobile virtual network operators, and business buyers are essential to helping us achieve our ambitions. While we're convinced that selling Fairphones can help these partners expand and differentiate their product offering, we also know that our phone and values-driven buyers require a different sales mindset. We're grateful to each and every one of the partners coming along on the fair electronics journey with us.

2017 sales partner highlights

226 total points of sale (23 online, 203 physical stores)

The Fairphone 2 is available in 11 countries: Austria, Belgium, Switzerland, Germany, Finland, France, Italy, Luxembourg, The Netherlands, Sweden, UK.

Through our partners:
1&1
A&C Systems
Avocadostore
Belsimpel
BTC Teleconsult
Circle Shop
Concorde Spa
Digitec
Ecosto
ETC Mobil
Faircustomer
Fairmondo
GoGreen Store
KPN
MediaWorld IT
Memo
Mobiel.nl
Mobilcom-debitel
Mobitel
Orange
The PhoneCoop
Post Telecom Luxembourg
Sinndrin
Sosh
Surfspot
T-Mobile Austria
Vireo
Why! Opencomputing

why! open computing was created in answer to the planned obsolescence in IT. We are therefore very proud to be associated with Fairphone for the sale of smartphones that address the same concern. This kind of initiative is necessary, not only to satisfy the demand of consumers aware of the issues, but above all to show that it is possible.

Nicolas Guignard, why! open computing SA
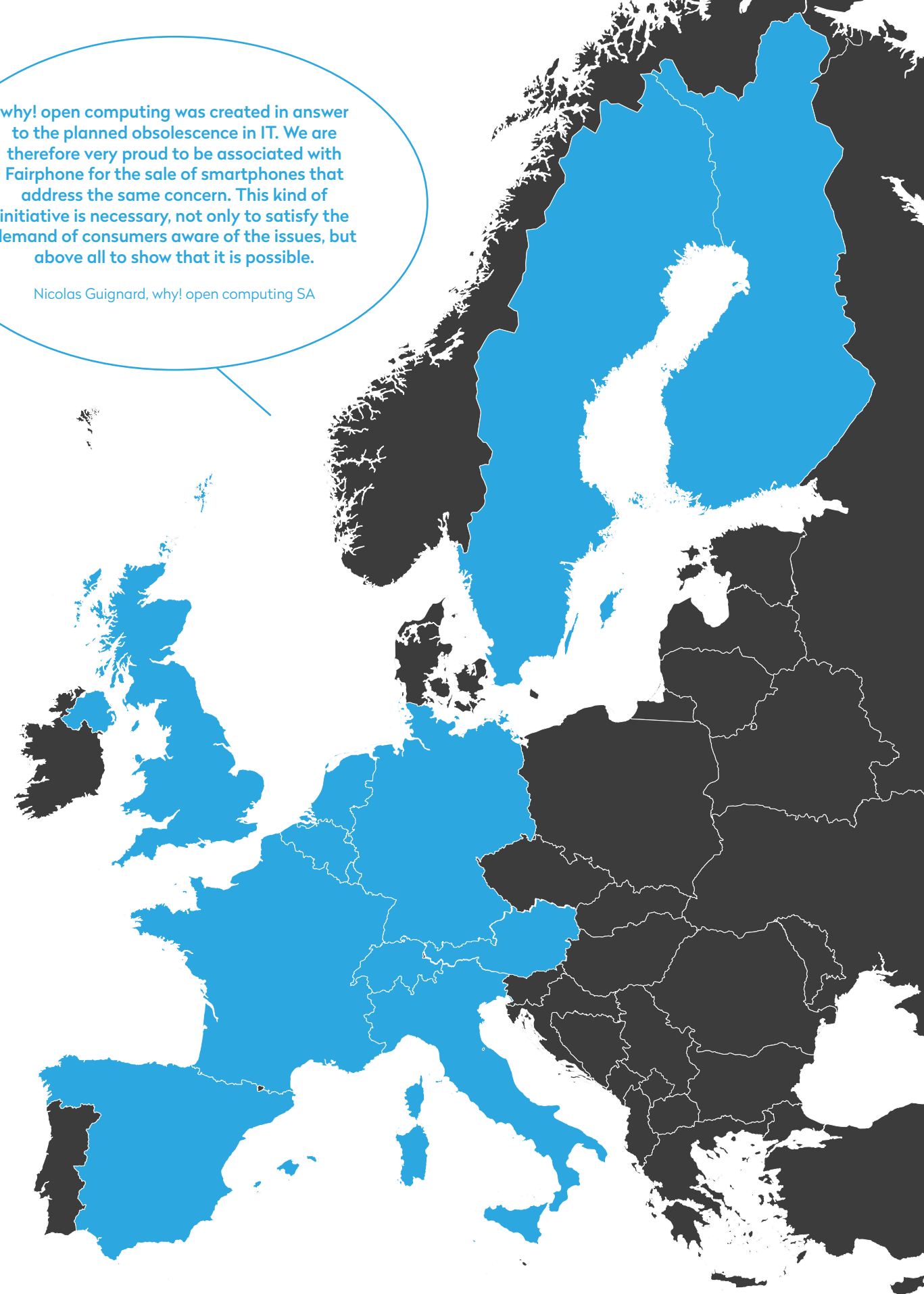
Long waits and tricky tickets
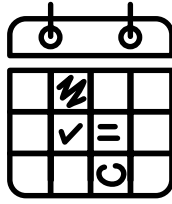
Customer support works hard to help Fairphone owners

Behind the scenes, customer support plays a crucial role in the success of our phones and the satisfaction of Fairphone owners. To give our growing customer base the help they need, our in-house support team of 23 people works tirelessly to manage all the incoming requests.

Besides fielding questions by email and phone, the team frequently updates the troubleshooting advice on our website. The wider Fairphone community also pitches in, giving lots of informal advice and answering questions on our online forum. As staff, community and phone owners find creative ways to fix problems together and it creates a strong feeling of team spirit.

Our customer support team gave it their all, but 2017 showed that we still have a lot of work to do. Besides ongoing support requests, production and delivery delays created an even bigger backlog of tickets than we had anticipated. As a result, we often struggled to provide solutions as fast as we'd like to. This was partly due to trying to find a balance between giving our customers in-depth, personal attention and simply offering quick and efficient service. While we pride ourselves on being nice, we recognized that we had to improve our speed and accuracy.

To deliver a better level of service, we focused on developing new tools and processes, as well as growing the team. Back in 2016, we also began working with an external party — Xtrasource — to help us tackle our backlog of support requests. From July 2017, we expanded our collaboration, and they started handling all of our first-line incoming calls. Since then, we've been able to officially support four languages on an ongoing basis (Dutch, English, French and German) and added local phone numbers to make sure all our customers could reach us affordably.

Going forward, we'll continue to find new ways to professionalize the department, boost customer satisfaction and speed up response times. And we'd like to once again thank all the Fairphone owners for their patience when they needed to wait longer than expected for our reply.

56,462
Total number of incoming support tickets

82.9%

Average satisfaction rating
based on customer survey with a scale from 0 to 100

Hi! The system for your returns is too complicated and isn't working as it should. But all the persons I talked to were super nice.

Everyone's very friendly, but I didn't get a reply for about 3 weeks — even a brief update would have helped to reassure me that something was happening.

I just love this movement. With all the economical limitations and cultural barriers, still you have patience and understand customers like other human beings and not numbers only. It's my third request for my Fairphone 2, and I keep on this journey with you guys!

Experimenting with circular business models
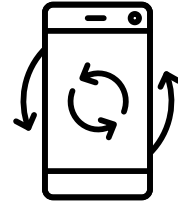
Fairphone 2 New Life Edition

When we designed the Fairphone 2, we focused on longevity. Besides helping our customers keep their phones working for as long as possible, we believe that longer-lasting devices translate directly into environmental benefits. The longer you can keep using and reusing the phones (and materials!) we already have, the better we can preserve resources and avoid unnecessary mining and manufacturing.

With those ideas in mind, in 2017 we tested a new sales concept to keep our phones going even longer: the Fairphone 2 New Life Edition. Each of these phones was refurbished in the same factory where they were originally made, underwent rigorous testing and met the same quality standards as our new phones. The phones were sold for a lower price of €429 and included a new battery and two-year warranty.

We offered this unique opportunity to Fairphone 1 owners and selected reseller partners such as Phone Co-op in the UK, and quickly sold out of all 1566 phones.

Fairphone as a service: A special pilot project just for businesses

Our phones are designed with a circular economy in mind, but to succeed would also demand a change in mindset about ownership, and a different approach to selling our products.

Towards the end of 2017, Circle Economy and Fairphone formed a community of practice with financiers (such as Sustainable Finance Lab, ABN AMRO, ING), accountants (NBA), data experts (Circularise) and lawyers (Allen & Overy) to start investigating a more resource-efficient business model — one that ensures the intrinsic value of the phone stays as high as possible for as long as possible. Our research resulted in one clear idea: Fairphone as a service.

This means asking business customers to move from buying a phone (ownership) to renting (services). We've set up a pilot project with the Dutch PGGM (a pension fund asset manager) and explored other small and medium-sized companies to help us test this concept "in the wild".

Putting ownership in the hands of the manufacturer can be a win-win. On the customer's side, they achieve maximum flexibility by buying the phone's real value: the services that a phone provides. And Fairphone would be in a better position to take advantage of the circular economy. If we lease the phone instead of selling it, we can ensure that all the resources inside are used optimally over the course of the phone's life cycle, including when it's time to be used by another client or recycled.

Our Impact

Positive change doesn't follow a linear path; sometimes it's two steps forward, one step back and a huge detour to the left.

When it comes to making a phone, we're doing things differently. We aim to create positive impact in four key areas:

- Long-lasting Design
- Fair Materials
- Good Working Conditions
- Reuse and Recycling

We've got big ambitions, but everything we do is a work in progress. Because we're disrupting centuries-old production models and deeply ingrained consumer habits, change won't happen overnight. Our activities help us keep improving the status quo one step at a time. With every person who commits to keeping their phone longer, with every supplier who questions where their materials come from and with every factory that encourages worker dialogue, we're moving in the right direction.

From the mines to the factories, consumer electronics production is filled with questionable practices. We're showing the industry that it's possible to take a more responsible approach.

Tungsten treatment facility in Rwandan mine.

Long-lasting Design

Most people replace their phones
within two years.
We think that's a design flaw.

Why we need long-lasting products

Consumer electronics are often viewed as semi-disposable objects, to be upgraded or discarded as soon as something better comes along. We're fighting against a market trend where the average phone is replaced within two years, creating a huge environmental impact.

But even if consumers want to keep their gadgets longer, current product design practices and services often stand in the way. Many of our modern devices are impossible to open, difficult to fix or need to be abandoned when the software can no longer be updated.

How we're making an impact

To reverse the trend of short replacement cycles, we're creating products that can last longer and are designed to be repaired. We believe in the maker's manifesto: "If you can't open it, you don't own it." We want people to build relationships with their phones and take responsibility for keeping them in good working order.

The Fairphone 2 was the first phone we designed completely from scratch. We introduced our modular phone in 2015, and it's still going strong. It delivers on our aims for longevity with easy do-it-yourself repairs, a variety of covers for customization and frequent software updates, including a full system upgrade to Android 6. We're also extending the lifespan of our phone by investing in the long-term availability of spare parts. As part of that aim, we had an exciting achievement in 2017: we launched new camera modules, making the Fairphone 2 the first phone with a core function that's easily upgradable by existing users.

Finally, we worked to share lessons learned from the Fairphone 2 in the hope that it helps others in the industry to optimize the design, production and recycling of consumer electronics.

Meet the world's first ethical, modular phone

Launched in 2015, the Fairphone 2 embodies our ambitions for fairer electronics.

Durable construction with a protective cover that is customizable in different colors.

Replaceable 5-inch 1080p display

The new camera modules hit the market on 31 August 2017. They made the Fairphone 2 upgradeable – a company (and industry!) milestone.

Removable, replaceable battery

32 GB storage included, expandable up to 64 GB

It's easy to open and repair. Modules can be replaced with a simple screwdriver or just your hands.

Two SIM slots for work or travel

Android 6.0 Marshmallow (released in April 2017)

Conflict-free tin, tungsten and tantalum and Fairtrade gold initiatives
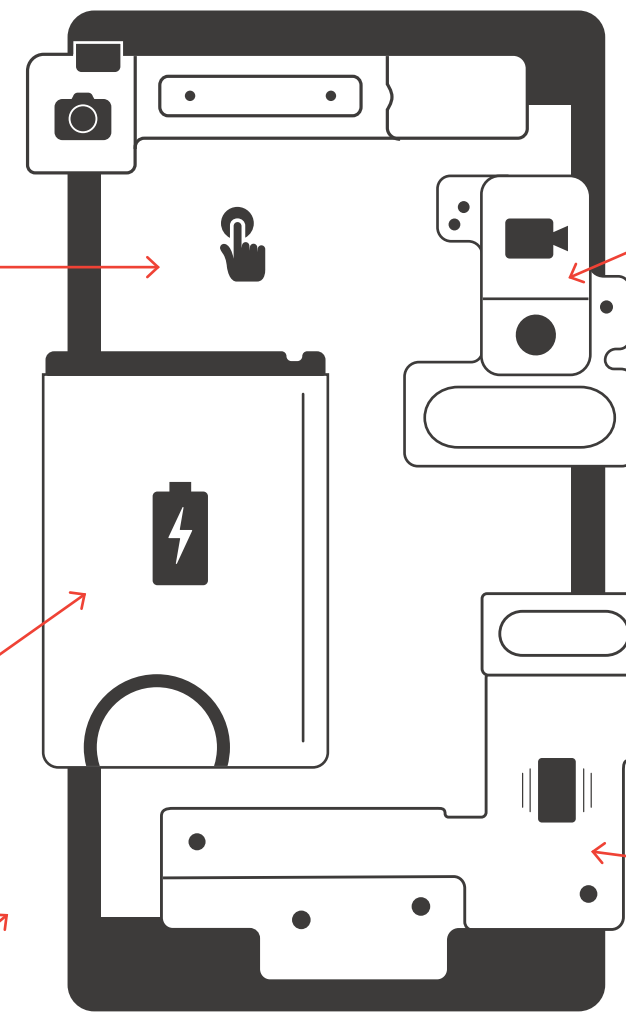
5 reasons why modularity makes sense

1.
The Fairphone 2 is easy to repair and upgrade

The Fairphone 2 modules allow customers to repair and upgrade their phones by themselves. Thanks to the Fairphone 2's easy-to-open modular design, iFixit gave it a perfect 10 for repairability.

Spare parts sold in 2017
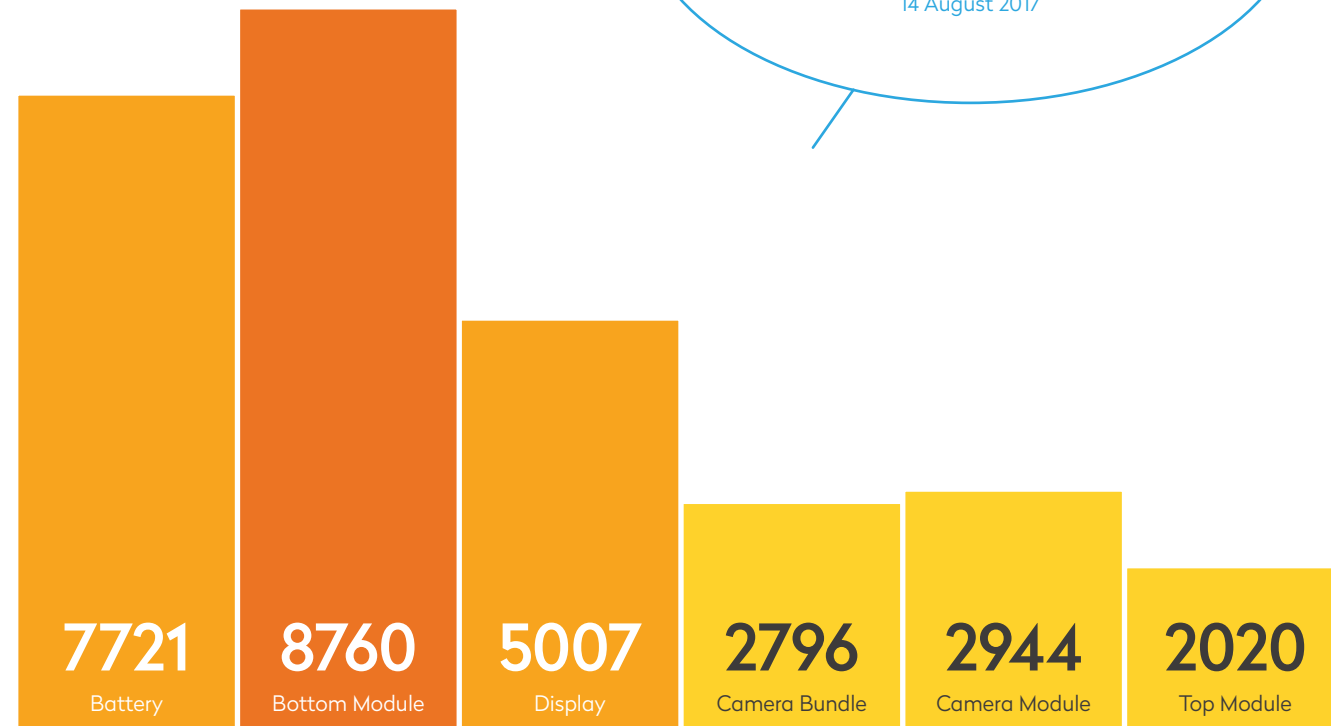
Life with a #fairphone: Microphone broken. Order part. Microphone module replaced in 2 mins. Microphone fixed. @Fairphone

Hugh Knowles on Twitter, 14 August 2017

| 7721 | 8760 | 5007 | 2796 | 2944 | 2020 |
| Battery | Bottom Module | Display | Camera Bundle | Camera Module | Top Module |

2.
Longer-lasting design helps cut CO2 emissions

Our 2016 LCA report shows that using a Fairphone 2 for five years (and repairing it as necessary with spare parts) results in 30% fewer CO_2 emissions than buying a new phone every three years.

30%

Enables 30% reduction in CO_2 emission accross Fairphone 2 life cycle

4.
It's the first phone with a Blue Angel certification

The Fairphone 2 is one of the 12,000 products and services that have earned this well-known German ecolabel for aspiring to better environmental standards. It was the very first smartphone to receive this honor.

DER BLAUE ENGEL
JURY UMWELTZEICHEN
schützt
MENSCH UND UMWELT

3.
It's raising the bar!

Fairphone earned the top score in Greenpeace's 2017 Guide to Greener Electronics. The report specifically mentioned our modular design, focus on easy DIY repairs, recycling research and our goal of making longer-lasting devices.

5.
It supports recovery of precious materials

Our recyclability study showed that based on the variety of materials recovered and the effort required for processing, the best option for recycling the Fairphone 2 relies on partially dismantling the Fairphone 2 and its modular components. That's a strong argument in favor of our modular design approach!

The Fairphone 2 gets an upgrade

With two new camera modules, it's the first phone that gets better with age

One of our highlights of 2017 was unveiling two brand-new camera modules, making the Fairphone 2 the first smartphone with a core function that owners can upgrade by themselves. Previously, the Fairphone 2 came with an 8 MP rear camera with single flash, and a 2 MP front camera. The updated modules contain a 12 MP rear camera with dual flash and a 5 MP front camera.

These new cameras represent something much bigger than better pictures: they mark the latest step in our ambition to create longer-lasting phones. First we used modular design to make the Fairphone 2 easy to open and repair. Then we customized the phone by offering new slim covers. And now, with two new camera modules, the Fairphone 2 is upgradable as well. Best of all, Fairphone 2 owners can complete the upgrade with just a screwdriver. In a world where most people replace their entire phone every couple of years, this is a revolutionary idea.

Creating our upgraded modules was only possible thanks to the amazing support of a collection of supply chain partners. We'd like to applaud their collaboration, patience and contribution to the delicate juggling act required to make new components fit into an existing design. The key players who helped us achieve this milestone include Hi-P, OmniVision, AT&S, Shangai Laimu Electronics, Harman, Sunny Optical Technology Group, CCL, OSRAM Opto Semiconductors and Qualcomm.
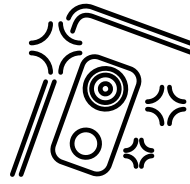
To share this proud moment with stakeholders, experts and industry media, we launched the camera upgrades in August at the annual consumer electronics conference, Internationale Funkausstellung Berlin (IFA). Thirty-three journalists from ten countries joined us there to hear what our founder and CEO, Bas van Abel, and CTO, Olivier Hebert, had to say. The resulting media coverage produced 685 mentions and 413 full articles, catapulting our longer-lasting design ambitions into the wider world.

With these new camera modules, we've accomplished something very special: a phone that actually gets better with age. By simply replacing two small modules, Fairphone 2 owners can keep their phones longer without having to compromise on quality. We're proud to have reached this milestone, and are so grateful to everyone who helped us get there!

The first batch of modules went on sale on 31 August 2017. By the end of 2017, Fairphone sold 5,289 rear camera modules, and 3,541 front-facing camera modules.
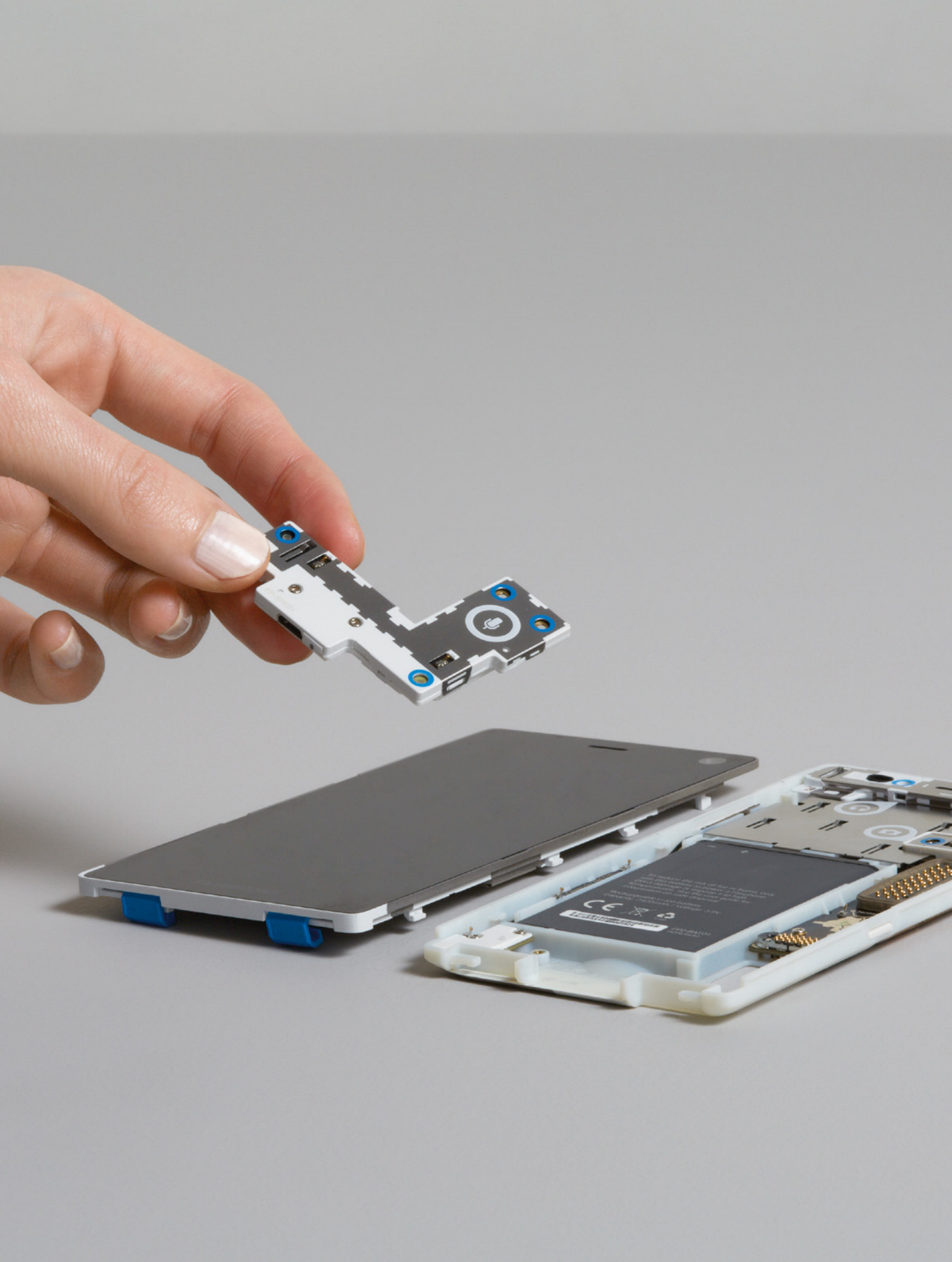
The challenge of keeping spare parts in stock
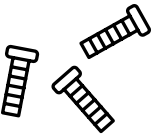
The availability of spare parts is essential to our goal of creating longer-lasting smartphones, but the economic system we operate in isn't yet set up with product longevity in mind.

Over the course of 2017, we fought a persistent battle to keep spare parts in stock. Just like all the other ways we're trying to make electronics fairer, we can only make progress one step at a time. And that often leads to frustration for our customers (and ourselves) when a part is out of stock or reaches its end of life.

Electronic devices can contain hundreds of different parts. During initial production, the manufacturing partner usually handles the sourcing of all the different parts. However, the longer a product is used, the harder it can become to get the right parts. And for us, as a small company, stocking spare parts often comes with three intertwined challenges: cash flow, minimum order quantities and discontinued components.

One way to secure the availability of spare parts is stockpiling. To do this, you need to have enough working capital to be able to invest now in stock that you expect to need later. At the same time, you also want to avoid buying too many parts — you run the risk of wasting money and having a huge environmental footprint due to buying parts that will never be used.

Some manufacturers require you to order a minimum number of components, and that number may increase as the component gets older. That amount is often far more than we need, plus an unmanageable financial burden for a company of our size. Sometimes we're able to piggyback off the order of a larger buyer to cover a supplier's minimum order requirements. However, if this type of deal falls through, as it did in 2017 with our display module, we would have to place the order alone… forcing us to renegotiate or seek alternatives, which aren't always available.

Sometimes, your original supplier decides to completely stop manufacturing the part you need. In our constantly innovating industry, it's simply a matter of supply and demand, with parts being discontinued to make way for the next thing. When this happens, we often buy up as much of the remaining stock as we can, while at the same time looking for new suppliers.

Software: The unsung hero of smartphone longevity
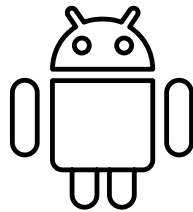
When it comes to longer-lasting phones, our repairable design often gets all the glory. But software is just as important in keeping our phones working well for the long term. Behind the scenes, the Fairphone software team is constantly focused on fixing bugs, making our phones more secure and improving performance to ensure great functionality — now and well into the future.

Monthly updates

We aspire to follow industry best practices and offer monthly updates, as they are essential for fixing bugs, providing security patches, improving the overall stability of the phone, and offering a great user experience to our customers.

Number of regular security updates in 2017:

13

Total number of security fixes:

370

Common Vulnerabilities and Exposures (CVEs)

Android 6.0 Marshmallow

In April 2017, the software team released a full system upgrade for the Fairphone 2: Android 6.0 Marshmallow. It required significant investment and resources, including securing the licenses to the complete code base and the tools required to do the majority of the development and maintenance work for the Fairphone 2.

The release gave us much better control over the entire software base, and enabled us to deliver solutions faster and more easily going forward. For users, the upgrade delivered enhanced security, including improved app permissions. It also contained features to improve battery life, enhance multitasking and optimize storage.

Open source code

Openness ties directly into our goals for longevity. We believe that our community should have access to our source code to make improvements, add new functionality and extend the usability of our phone. We also believe that releasing the code will prolong the life of the phone — external parties, developers and our community can create fixes and keep our software up to date, even if we're no longer able to.

We originally released the Fairphone Open Source OS in "easy-to-use" format in April 2016 on a dedicated website: code.fairphone.com. It includes the standard Android operating system, but does not include any Google Mobile Services (GMS). Throughout 2017, we made sure our Open Source OS received the same support, updates and security fixes as our "normal" operating system.

Why it's important

On average, consumers use their mobile phones for two years before replacing them. Because we promote longer-lasting electronics, we want Fairphone owners to keep using their phones for as long as possible. To benchmark our performance, we measure how many Fairphones are actively in use, compared to the total number sold.

Where we are in 2017 — 53.68% of Fairphone 2s in use versus the number of Fairphone 2s sold

We define active users as those who have our Fairphone Updater app installed and have connected to the internet at least once in the last month. So far, we can only measure active users who use our standard operating system with Google Mobile Services, not those using Fairphone Open OS or other alternatives. Another issue in measuring this indicator is the fact that all the phones our reseller partners have in their inventory count as "sold" in the eyes of Fairphone, but are not yet "in use" by a customer.

Improving usability for owners

On top of the pitfalls in measuring this indicator, throughout 2017 we faced a number of issues that may have led to a decrease in active users. For example, several production delays meant that specific spare parts were not always in stock, which prevented people from quickly performing repairs, possibly forcing them to (temporarily) stop using their Fairphone 2. Our ambition for 2018 is to increase active phone users to 70%. To ensure the Fairphone 2 offers reliable functionality and a satisfying user experience for as long as possible, we're focusing on a combination of repairability, customization, upgrades and software.

Fast KRACK response

Often, the goal of software updates is to protect users from the latest security threat. In October 2017, we were alerted to a flaw in WPA2, a protocol that secures Wi-Fi networks. It meant that any Wi-Fi enabled device was vulnerable to KRACKs (key reinstallation attacks) which could allow attackers to access sensitive information as well as install malicious programs like ransomware.

The Fairphone software team immediately took actions to protect our owners against KRACKs. We released a security patch in record time on 24 October 2017.

"Again! @Fairphone one of the first Android suppliers to fix security issues! Thanks! #krack#androidupdate #wearefairphone"

Joachim @fodinabor on Twitter, 25 October 2017

"Just out: Security update for @Fairphone 2. This addrresses #KrackAttack vulnerabilities, so update now! fairphone.com/release-notes#KRACK"

Franz Geiger @justfortherec on Twitter, 24 October 2017

Currently installing @Fairphone OS Update. Pretty good reaction time!#KRACK"

Jorg Pfrunder @joergpfrunder on Twitter, 19 October 2017

Ending support for the first Fairphone

In 2013, we embarked on a journey to shake up the industry with the Fairphone 1. Thanks to the pioneers who supported our mission, we were able to start building a movement for fair electronics.

We are very proud of our first device and everything it helped us achieve. But after supporting the Fairphone 1 for three and a half years and the Fairphone 1U for nearly two and a half years, we had to a make a difficult call; in July 2017, we announced that we were no longer able to keep supporting our first phone. On a practical level, that meant we would no longer sell spare parts for the Fairphone 1, and stopped our efforts to develop the Android 4.4 software upgrade.

This choice was forced upon us by the realities of electronics manufacturing and the design of our phone. The Fairphone 1 wasn't designed by us — it was a licensed design from a Chinese manufacturer, where we could only make a few improvements. After two years of production, our manufacturer stopped making phones. So at that time, we needed to build up a stock of spare parts. We estimated the amount we would need in the future and purchased what we could with the financial resources we had available.

However, in early 2017, it was clear that we were running out of Fairphone 1 spare parts. At this point, most of the original parts were not longer being manufactured. And other parts were completely unaffordable due to the small volumes we required. With no Fairphone 1 hardware support available after mid-2017 (and a decreasing number of FP1 users vs FP2 users), we also had to discontinue software support of the Fairphone 1 due to the limited capacity of our small software team.

Fairphone 1
Launched May 2013

End of software maintenance and spare parts announced July 2017

Licensed design

The Fairphone 1 design was licensed from a manufacturing partner. We had limited control over the design and limited access to suppliers for long-term spare parts orders.

Product longevity

- Replaceable battery
- Created free repair manuals with IFixit to encourage DIY repair
- Spare parts sold in our online shop (first in the industry)

7/10 **Repairability score** IFIXIT

Fairphone 2
Launched May 2015

Ongoing sale of spare parts in our shop

Custom, modular design

The Fairphone 2 was our own design, which we made modular for easy repair. Owning the design gives us greater access to suppliers and makes it easier to source spare parts.

Product longevity

- Modular design enables repair to help phone last longer
- Spare parts for sale in our online shop
- Update to Android 6
- New slim cover for customization

10/10 **Repairability score** IFIXIT

Setting the stage for bigger ambitions

With the Fairphone 1, we took our first steps toward achieving our vision of fairer electronics. We started sourcing conflict-free minerals directly from conflict-affected countries and integrated them into our supply chain. We kicked off our first worker welfare fund with our manufacturing partner. And by being the first phone company to offer spare parts in our online shop and working with iFixit to create repair tutorials, we began moving towards making our devices last longer.

The lessons we learned while making and supporting the Fairphone 1 had a direct impact on how we approached the Fairphone 2. The design and spare parts struggles we faced with our first phone confirmed the need for having more control over our phone's design. As a result, the custom, modular design of the Fairphone 2 not only expands the options for repairability, it also gives us more flexibility in sourcing spare parts and allows us to build stronger relationships with suppliers. The value chain achievements of the Fairphone 1 also laid the groundwork for us to expand our ambitions for fair materials, reuse and recycling and worker welfare.

As our company continues to grow in size and ambition, it's only natural that our products will evolve along with it. While we may no longer be able to support the Fairphone 1, many owners are still happily using theirs to this day. We'd like to thank them and all of our supporters for contributing to the first steps of our journey towards fair electronics.

Fair
Materials

What if you can't find a fair supply chain for your materials? If you're Fairphone, you find some eager partners and figure out how to set it up yourself.
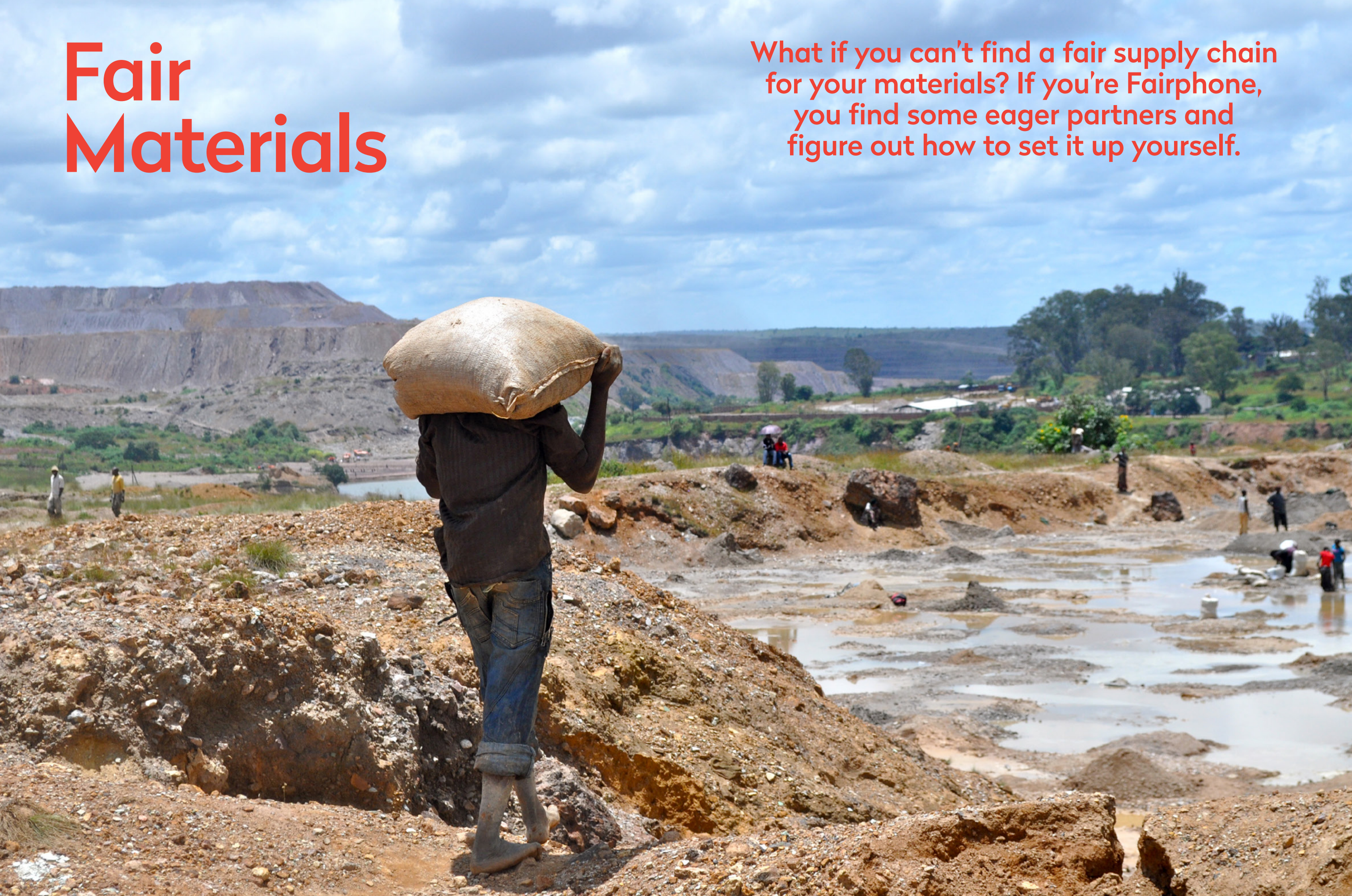
Why we need fair materials

Smartphones contain dozens of different materials — and many of them enter the supply chain straight from the mines. From dangerous working conditions and child labor to poor wages and pollution, the mining sector can have its share of social and environmental challenges. And often, the most in-demand materials come from regions with limited regulation and oversight.

Beyond issues at the mines themselves, we also need to recognize that many of the essential materials used in phones are a limited and dwindling resource. To increase sustainability, the industry needs to find alternatives to virgin mining and ways to conserve and reuse the materials already in circulation. Ideally, we would have an economy that operates 100% on the principles of circularity, where materials only stem from recycled sources. However, that dream remains far from becoming reality, which is why we must continue to focus on responsible mining in the meantime.

How we're making an impact

We care deeply about the materials that go into our phones. How can you change what you don't know? You can't. That's why making things better starts with gathering information. To gain a deeper understanding of the complex consumer electronics supply chain, we have been busy trying to map all the different materials and manufacturing locations involved in creating our phone.

One material at a time, we're working with a range of partners to address the issues, source from mines that positively impact vulnerable communities, increase our use of recycled materials and reduce our use of hazardous materials. As we incorporate these fairer resources into the supply chain of our phones, we're also focusing on increasing industry and consumer awareness to influence lasting change.

Our phone: what materials are inside?

Scoping study helps us understand which materials offer the greatest potential for positive change

In 2017, we worked with The Dragonfly Initiative to develop a framework to assess 38 of the materials found in our phones. Together, we looked at the social, environmental and health-related issues for each material to determine where our efforts could make the biggest difference. In addition, the results are used to contribute to setting the agenda across the industry by bringing more awareness to materials that need urgent attention.

The outcome of The Dragonfly Initiative's methodology was a shortlist of priority materials that we selected for further investigation: copper, cobalt, gallium, gold, indium, nickel, tantalum, tin, tungsten, and rare earths. There were a wide variety of reasons for picking these specific materials, but some of the high-level criteria include the fact that these materials are all frequently used in the electronics industry, have a range of mining-related issues, and are not likely to be substituted in the near future.

In May 2017, we published our Material Profiles Report, where we provided detailed information for the 10 materials mentioned above. The publication coincided with the 2017 OECD Forum on Responsible Mineral Supply Chains, a high-level conference where industry and (non)governmental representatives met in Paris to discuss the most challenging issues in mineral sourcing. Fairphone was also present and the material report helped to steer discussions about possible solutions forward.

Guide to the Scoping Study

Opportunities for improvement in ten supply chains

Smartphone Material Profiles

FAIRPHONE — THE DRAGONFLY INITIATIVE

Previous page: Fairphone's first peek in a cobalt mine, DRC 2011
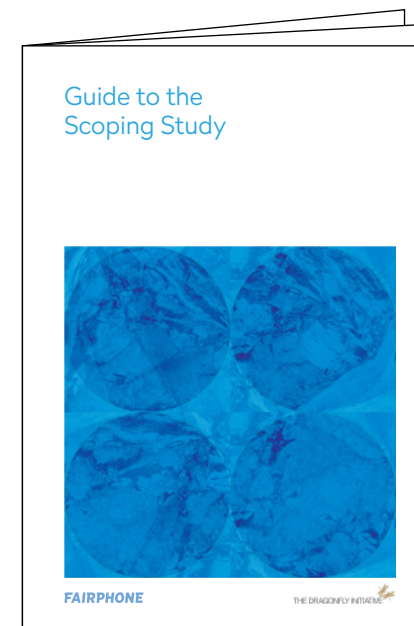
Component approach leads us to refine our selection

Our next layer of investigation led us to an important conclusion: for maximum impact, it's not efficient to simply focus on individual material supply chains — we have to consider them within the context of our phone. Therefore, our final prioritization was based on which materials were used in large concentrations in a single component, and which components contained multiple materials from supply chains that could be improved.

This component-led approach will helps us narrow our focus and meaningfully collaborate with a more limited set of suppliers. In turn, it creates a strong incentive for suppliers to make an impact, create differentiated products and expand their market. Finally, focusing on components makes our impact more concrete — and easier to demonstrate to consumers and our peers.

With all this in mind, as of the end of 2017, our updated list of materials to focus on in the coming years includes: **cobalt, copper, gold, lithium, neodymium, plastic, tin** and **tungsten**. But as always, this list is a guideline, and not something set in stone. So as the industry, awareness and initiatives continue to evolve and change, we expect our list of focus materials will keep changing and growing as well.

Distribution of focus materials in Fairphone 2 modules (in rounded %)

Total weight of our focus materials in the Fairphone 2 (in rounded grams)

Gold: 0.024
Tin: 1.515
Tungsten: 0.44
Copper: 9.08
Cobalt: 6.48
Neodymium (Rare Earth): 0.14
Lithium: 4.21
Plastic: 32

Camera Module
Gold: 0.5%
Tin: 3%
Copper: 3%
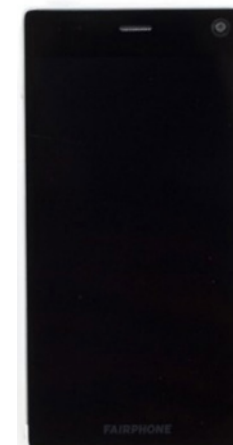Neodymium: 14%

Top Module
Gold: 4%
Tin: 9%
Copper: 4%
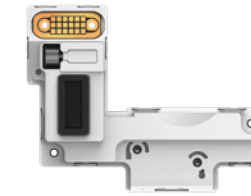
Bottom Module
Gold: 5%
Tin: 8%
Tungsten: 99%
Copper: 10%
Neodymium: 86%

Battery
Cobalt: 100%
Lithium: 99%

Core Module
Gold: 88%
Tin: 67%
Tungsten: 1%
Copper: 80%
Lithium: 1%
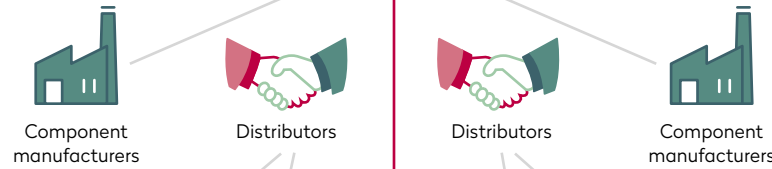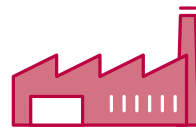
Display
Gold: 2.5%
Tin: 11%
Copper: 3%

Case
Plastic: 50%

Final assembly manufacturer
Assembles the components to create the phone

Component manufacturers
Assemble the individual components to make a phone

Component manufacturers

Distributors

Distributors

Component manufacturers

Traders

Traders

Material manufacturers

Material manufacturers

Smelters and refiners
Refine minerals into usable materials for component manufacturing

Traders

Traders

Mines
Minerals are extracted from many different mines

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

Our supply chain: where are the players?

By making a phone, we want to uncover and meet the different actors involved. We're mapping our supply chain based on a combination of desk research and direct communication with suppliers. And in line with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, we publish and regularly update our list of suppliers, smelters and refiners.

All the details shared here are accurate to the best of our knowledge at the time of publication. While we know so much more than when we first started, there's still plenty to do when it comes to mapping our supply chain. We're continuously working to improve our system for collecting and assessing information.

- 103 suppliers have been identified as part of our supply chain (final assembly, component- and material manufacturers).

- 97% of the suppliers we contacted shared information and listed a total of 288 smelters and refiners for the four defined conflict minerals: tin, tungsten, tantalum and gold.

- 238 of the 288 smelters and refiners are verified to be in compliance with the standards of the Responsible Minerals Initiative (RMI) or one of the cross-recognized certification programs that checks company processes to identify conflict minerals originating from the DRC. The remaining 50 have committed to undergoing an audit, have failed to proceed with the certification process, or still require further outreach to join a certification program(s).

68 suppliers reported the locations of their production facilities:
China: 45
Asia excluding China: 20
Europe: 3

The smelters and refiners for tin, tungsten, tantalum and gold are located in:
China: 74
Asia excluding China: 133
Europe: 30
North America: 23
South America: 27
Other: 21

29 smelters and refiners are known to source tin, tungsten, tantalum or gold from the DRC.

7 smelters and refiners are known to source tin, tungsten, tantalum or gold from neighbouring countries of the DRC.

92 smelters and refiners are known to source tin, tantalum, tungsten or gold from recycled sources.

Fairphone Suppliers, Smelters and Refiners

August 2018

What materials have we sourced more responsibly?
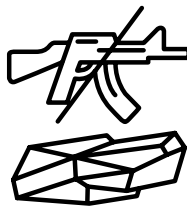
When we founded Fairphone, we initially focused on finding more responsible sources of the four defined conflict minerals — tin, tantalum, tungsten and gold. But of course, challenges (and opportunities!) in material supply chains go far beyond these four and touch on many other issues besides conflict. Over the years we've therefore expanded our scope. On the following pages you can see what we have achieved so far.

What are conflict minerals?

While the entire mining sector is often associated with social and environmental abuses, tin, tantalum, tungsten and gold have been singled out as being especially problematic. These four materials are known as "conflict minerals" because they have contributed to funding rebel groups and supporting ongoing conflict in the Democratic Republic of the Congo (DRC) and surrounding countries.

In an attempt to address this issue, the Dodd-Frank Act requires that companies traded on US stock market report whether their products contain minerals coming from these regions. As an unintended consequence, many companies stopped sourcing from this part of the world altogether. However, instead of turning away from regions with a high risk of conflict, Fairphone wants to do business in areas where we can have the greatest impact. That's why we initially focused on finding traceable sources of these four materials directly from the DRC and surrounding countries. After setting up more responsible supply chains for these minerals, we're now tackling material sourcing challenges that go beyond conflict.

Cobalt

What's up with this supply chain?
At present, more than 50% of the global mined cobalt production comes from the DRC. Even though cobalt is not classified as a conflict mineral, the mining conditions are often associated with severe human rights violations, including child labor. However, it is not currently possible to fully substitute cobalt in electronics, nor is there a sufficient supply of recycled cobalt, which means mining will remain the basic source of supply for the near future. Actions to improve the mining sector are therefore urgent.

Where is it found in the phone?
Battery.

What have we done so far?
Way back in 2011, before Fairphone became a social enterprise, we took our first trip to the Democratic Republic of Congo (DRC) to visit cobalt mines and learn more about the working conditions. In the years that followed, we returned several times to meet parties on the ground and maintain a close eye on opportunities to open up and improve our cobalt supply chain. In 2017 we co-hosted a workshop in DRC with local and international parties and had concrete conversations with supply chain players to work together on creating positive change.

Copper

What's up with this supply chain?
In certain parts of the world, copper mining is connected to dangerous working conditions, considerable health risks and pollution of the surrounding environment. Despite issues related to mining, the good news is that copper is easily recyclable, offering opportunities to move away from virgin sources.

Where is it found in the phone?
Printed circuit board (PCB), connectors, integrated circuits, flexible printed circuits, and many other components.

What have we done so far?
We're raising awareness in our supply chain for increasing the use of recycled copper. Together with our PCB manufacturer AT&S, we learned that 30% of the copper in our PCBs comes from recycled sources. In addition we're actively increasing the supply of recycled copper available to the industry by collecting and recycling phones.

Gold

What's up with this supply chain?
Because tiny amounts of gold are extremely valuable, this mineral is very prone to smuggling. Even outside of conflict and high-risk regions, gold mining poses a wide variety of social and environmental challenges, such as land disputes, unfair pricing, unsafe working conditions, child labor and mercury pollution.

Where is it found in the phone?
Printed circuit boards (PCBs), integrated circuits and in tiny amounts in many more components.

What have we done so far?
In 2016, we became the first electronics company to source gold from Fairtrade certified artisanal mines, specifically from Minera Sotrami S.A (Sociedad de Trabajadores Mineros S.A.) in Peru. It is mined following rigorous regulations, including child protection policies.

With the help of our partners AT&S (printed circuit board), Zhaojin Kanfort (gold salt) and Valcambi (refining), we mapped our gold supply chain and carried out extensive research to be able to set up this supply chain.
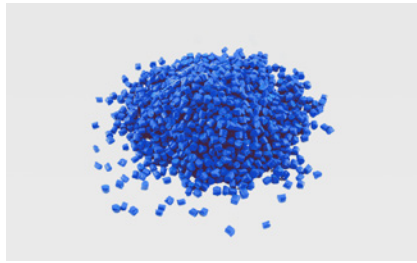
Plastic

What's up with this supply chain?
Plastic is a significant pollutant in landfills and is an increasingly problematic ocean pollutant. Its extreme durability means it can remain in the ecosystem for centuries, where it negatively impacts natural habitats and wildlife.

Where is it found in the phone?
Back cover, various plastic parts in the components of the phone, packaging materials.

What have we done so far?
For products like smartphones, it's impossible to completely avoid plastic. So we're focusing our efforts on making better decisions about how much and what kind of plastic we use. We're also looking more closely at who we work with for sourcing and production.

We currently use 50% post-consumer recycled polycarbonate (the best option available), regular polycarbonate (the only transparent plastic that meets our quality requirements) and thermo polyurethane.
Our packaging material is made of PaperFoam®, which is compostable and uses much less energy to produce than plastic, regular cardboard or paper pulp.

Tantalum

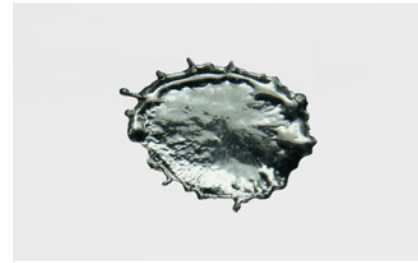**What's up with this supply chain?**
When the development of miniaturized capacitors led to increased demand for tantalum, the mineral also attracted the attention of rebel groups in the DRC and is now classified as a conflict mineral.

Where is it found in the phone?
Tantalum capacitors.

What have we done so far?
We worked with Solutions for Hope, who developed the first closed-pipe supply chain for tantalum, originating from Katanga in the DRC. The pilot project proved what was possible, and the initiative was later expanded to involve more mine sites as part of the iTSCi Program. We still use this tantalum in our supply chain.

Tin

What's up with this supply chain?
Tin is considered a conflict mineral because its mining is associated with financing armed groups in the DRC. Artisanal tin mining is associated with poor working conditions, serious health problems and environmental pollution.

Where is it found in the phone?
The majority of the tin used can be found in the solder. It is used to "glue" components to the Printed Circuit Boards (PCBs). Small amounts of tin can be found in many other passive components in our phone, such as in the camera and semiconductors.

What have we done so far?
Fairphone was the first phone company to join the Conflict Free Tin Initiative (CFTI). A pilot program set up to show it was possible to source tin from conflict-free validated mines in the Democratic Republic of the Congo (DRC). After successfully achieving this, the project concluded in 2014 and transitioned to a scale-up phase. Since 2015, the iTSCi Program continued to ensure conflict-free sourcing from the region and expanded the initiative to include many more countries and mine sites. We still use this tin in our supply chain.

Tungsten

What's up with this supply chain?
Tungsten is classified by law as a conflict mineral, and has also been associated with poor working conditions in artisanal and small-scale mining.

Where is it found in the phone?
Vibration motor.

What have we done so far?
After tungsten was classified as a conflict mineral by the Dodd-Frank Act, trade from East Africa ground to a halt — it was easier for companies to source from other regions than to implement traceability schemes. As a result, many miners were deprived of their livelihoods. In 2016, we contributed to re-starting tungsten exports from this region by connecting our supply chain to the New Bugarama Mining Company in Rwanda via Austrian smelter Wolfram Bergbau und Hütten AG. Besides supporting mines that contribute to the local economy, this project was also a good example of how artisanal and small-scale mining can transition to more responsible semi-industrial practices.
In addition to supporting fairer mining practises in Rwanda, we learned from our smelter Wolfram Bergbau und Hütten AG that the tungsten they supply for our Fairphone 2 vibration motor also includes 50% recycled tungsten.

Key Performance Indicator:
Sustainable sourcing
of focus materials
(cobalt, copper, gold, lithium, neodymium, plastic, tin and tungsten)

Why it's important

Corrupt warlords. Child labor. Deadly working conditions. Unfair wages. Limited alternatives. For us, more responsible materials means going straight to the areas where we can make the biggest positive impact. We want the materials in our phones to come from more sustainable sources — which include recycled, Fairtrade, conflict-free or other sources that deliver social and environmental benefits.

Where we are in 2017 — 25.37% of the total weight of our eight focus materials was sustainably sourced in 2017

Because we recognize the complexity of electronics supply chains, we started by mapping how much of each focus material we use in our phone, based on information we gathered from suppliers. Next, we added up the total weight of each of the eight focus materials. Finally, for each of the materials, we compared the weight we've responsibly sourced to the total amount used in our phones to determine the final percentage of sustainable materials.

Building better material supply chains

While we do painstaking research, we are often limited by the information suppliers are able or willing to share with us. In addition, for some of our focus materials, sustainable sources do not yet exist — so we must find ways to build more responsible supply chains with a network of partners. Our goal for 2018 is to sustainably source 40% of our target materials. Gold and cobalt will get special attention due to partnerships that are already in progress.

Building a foundation for more responsible gold mining in Uganda

In 2017, we kicked off an ambitious gold project — an innovative new partnership to proactively support more responsible gold sourcing. By uniting industry influencers with different areas of expertise, we aim to work with artisanal and small-scale mines (ASM) in Uganda to establish a sustainable, traceable gold supply chain that creates a better future for miners and their families.

The origins of this new partnership started with the gold covenant, an initiative spearheaded by the Dutch Ministry of Foreign Affairs which aims to increase the supply of responsibly sourced gold. The covenant brought together a variety of parties with an interest in the gold sector, including commercial businesses, industry boards and non-profit organizations.

Left: Artisanal gold miners in Uganda.
Right (from top to bottom): Laura meeting the head of a gold mining cooperative; A duty roster in SAMA gold mine cooperative; A ball mill breaks down large rocks to increase productivity and miners' income.

Our discussions resulted in something special : a new partnership focused on practical ways to create a more responsible gold supply chain. Besides Fairphone, initiators include Hivos, coordinator of Stop Child Labour (SCL), UNICEF, Fairtrade Foundation, Solidaridad and Royal Philips. Our activities are supported by funding partner RVO (Rijksdienst voor Ondernemend Nederland).

In the next two years, our partnership will focus on sourcing more responsible gold from Uganda, which has a significant concentration of artisanal and small-scale gold mines. Besides smuggling and environmental damage, the sector is associated with human rights abuses, including child labor. In fact, up to 30% of the workers in Uganda's mines might be children.
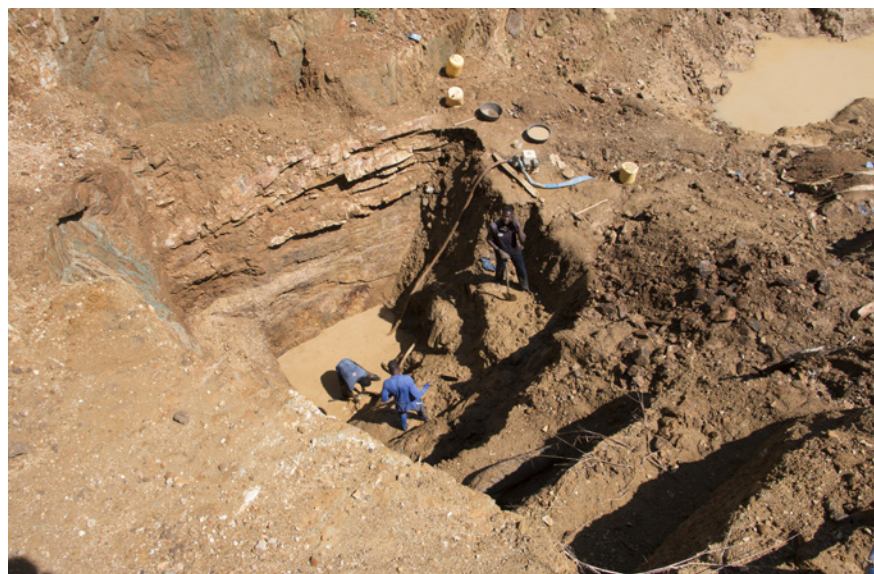
From top to bottom : Using a forklift to retrieve the mined gold ore; Working hours are managed well in SAMA gold mine in Uganda; Mining the surface for gold.

Therefore, to contribute to more responsible gold mining in Uganda, we will take a multi-pronged approach. At the mines themselves, we want to increase economic prosperity with capacity building trainings and (financing for) better mining equipment. And to ensure sustainable production and profits, we intend to provide long-term access to international markets by including this gold in the Fairphone supply chain and actively seeking other buyers in the electronics sector. Throughout the course of our activities, we will also evaluate and share our results to encourage other supply chains and industries to replicate best practices and expand the overall impact.

From top to bottom : Artisanal gold miners in Uganda; Moving gold ore to the washing area; Washing gold in SAMA mine, Uganda.

The challenges of cobalt sourcing in the DRC

Left: Artisanal miners digging for cobalt.
Right (from top to bottom): Large-scale industrial mining in the DRC; Industrial mining of cobalt.

As part of the Fairphone journey to improve mineral sourcing, cobalt has always been close to our hearts. In April 2017, we co-organized a two-day workshop in Lubumbashi, in the South of the Democratic Republic of the Congo, together with German development organizations BGR and GIZ as well as the Congolese IDAK.

About 40 local and international parties attended, including government authorities, mining cooperatives, individual miners and NGOs. In this workshop, we discussed the practices and issues we had seen during on-site visits and shared opinions on possible solutions, including existing programs on the ground.

Also in 2017, we began conversations with refiner Huayou Cobalt to start setting up a traceable supply chain for cobalt in the Fairphone 2 battery, originating from a selection of artisanal and small-scale mines in the DRC.

From top to bottom: Cobalt oxide ready for export; Mine guard; Cobalt miners on top of their game.

Selected mines will need to meet certain baseline criteria including legal registration, having systems in place to prevent child labor, and showing that the cobalt can be directly traced to the individual mine. In addition, Fairphone and Huayou have committed to working directly with selected mines to further improve health and safety and the miners' ability to generate a fair income. The aim is to outline a clear roadmap to continuously improve conditions at these mines.

We are proactively inviting other industry players to join us and there are already concrete signs of commitments from other brands to partner with us in setting up this new supply chain.

From top to bottom: Fairphone team member Laura and the provincial Minister of Mines; Cobalt straight from the mine; Price list for cobalt and copper at a trading house.

Good Working Conditions

For ideas on how to
improve working conditions,
we go straight to the experts :
the factory employees themselves.

Why we want better working conditions

Electronics supply chains contain a seemingly endless number of steps — creating a complete disconnect between the people who make products and the people who use them. When it comes to smartphones, the vast majority are manufactured in China. But the country's fast, affordable production often comes at a cost to workers.

Insufficient regulations and lack of recognition for workers' rights can contribute to everything from dangerous working practices to unlawful job contracts. We want to improve working conditions at the heart of the electronics sector, including health and safety, worker representation and working hours.

How we're making an impact

We aim to improve working conditions for the people involved in making our phones, including the people working at the assembly lines. We use a worker-driven improvement approach which goes beyond standard compliance and audits. By conducting employee satisfaction surveys and stimulating dialogue between employees and factory management, we enable workers to gain influence on topics such as health and safety, working hours, and wages and benefits. Investing in employee satisfaction results in a more stable, motivated workforce, which leads to lower recruitment costs and higher production quality — it's a win-win for both factory management and employees.

In addition, as active members of the platform Clean Electronics Production Network (CEPN), we advocate for zero exposure to toxic chemicals in manufacturing throughout the electronics industry.

To figure out where we're going, we have to know where we're starting from

Before we can make collaborative plans for improving worker welfare, we need to understand the existing situation.

Our initial factory assessment programs were limited to first tier partners. However, in 2017 we continued to expand our focus to include second tier (component) manufacturers. Throughout the year, together with third-parties, we conducted a total of eight assessments with six of our (potential) suppliers.

We use a combination of third-party assessments, audits, employee surveys and dialogue sessions to gain insight into working conditions and worker satisfaction, as well as factory health and safety standards.

Key Performance Indicator: People benefiting from our interventions

Why it's important

Exploitation and dangerous working conditions are just some of many human rights abuses in the life cycle of electronics. Improving working conditions all the way down our supply chain remains a core Fairphone goal. We're listening to workers about what they want, and which of our interventions are most welcome. Worker surveys that establish what conditions workers actually want to change — rather than those we presume should change — have proven extremely useful.

Where we are in 2017 — 5,200 people

We count the cumulative number of people directly benefiting from Fairphone's social, environmental and/or economic interventions with supply chain partners. Examples might include improved health and safety, receiving an increased income, or the implementation of an employee representation committee. We don't double-count people targeted twice (for example, by multiple projects at the same mine or factory). And we don't count family members who may benefit from increased income or security of miners or factory workers.

Collaborating to increase worker satisfaction

We'll continue to work with our partners to improve dialogue between employees and management and pursue new ways to mutually benefit workers and companies, one step at a time. Throughout this journey we'll gather and share insights and collaborate with suppliers and labor rights experts.

Finding a like-minded partner with Broadway
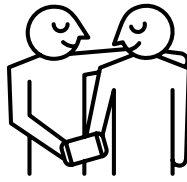
With the development of the Fairphone 2, we aimed to expand the reach of our worker welfare projects beyond our final assembly manufacturer to include selected second-tier (component) manufacturers.

In 2016, we kicked off a partnership with Broadway to produce colorful new cases for the Fairphone 2. They were an ideal candidate to collaborate with on creating a better working environment — they saw the value of the project and were willing to invest time and money in achieving our shared ambitions.

An independent third party, Economics Rights Institute, conducted an employee satisfaction survey and employee interviews. From this we learned that in general the employees are quite positive — giving a 7 out of 10 for overall worker satisfaction. When asked what could be improved, employees mentioned food service, increased benefits/remuneration, and improved communication with colleagues and supervisors. We also discovered that there was already a group of worker representatives in place, but both the management and employees felt that it was not working as well as it could.

Over the course of 2017, we focused on two main areas for improving worker welfare : employee/manager communication, and the use of unsafe chemicals at the factory.

Steps taken to improve employee representation

- Offered training sessions to employee representatives and management on constructive communication and problem solving, including tools and methods for collecting opinions from the workforce.
- Organized new elections to expand the group of worker representatives and better reflect the actual composition of the workforce (e.g., office workers vs. assembly workers).
- Made the election process more transparent by publishing a list of candidates before the elections and giving candidates better opportunities to introduce themselves and their ideas.

2,824
employees
(81% of the workforce)
voted for new worker
representations

34
employee representatives
were elected.
(Roughly 1 representative
for every
100 employees.)

Health and safety improvements

To ensure a safe working environment, independent third-party assessor Golder performed an Industrial Health Assessment at Broadway in April 2017. Broadway performed extremely well within the defined safety parameters, but to completely eliminate risk of exposure, they still decided to replace certain chemical solutions. They have also introduced a new system for keeping track of all the information about the chemicals used.

Chemical safety results

- 20 samples were taken at work stations to test for exposure to hazardous substances.
- 18 of the samples contained no trace of hazardous chemicals ; two showed minor exposure but well within safety limits.
- One chemical solution (n-hexane) was replaced, even though exposure fell within safety limits.

40
employees held
dialogue sessions
with their
managers

Better meals and a bonus

Finally, the food got better. Worker representatives created a committee to review and improve the food service offered. Broadway opened a second canteen with food provided by a different caterer to increase competition and give workers more choice. Hygiene has also been improved by replacing all cutlery and dishes as well as introducing better cleaning equipment. These might seem like small changes, but they're concrete improvements that make it easy for management and workers to see the benefits of worker representation.

All in all, Broadway has proven to be a receptive and collaborative partner in improving worker welfare. We're very pleased with the progress we made together in 2017.

Collaborating with Hi-P to create a better working environment

Reflecting on our efforts to set up a Worker Welfare Fund

To fulfill our goal of making a lasting impact on working conditions and worker satisfaction, Fairphone works closely with selected suppliers to assess their current situation and make a collaborative plan for improvement. One such supplier is the final assembly manufacturer for the Fairphone 2, Hi-P International Limited.

When we began working with Hi-P in 2015, we partnered based on a shared commitment to improve working conditions. One of our first steps included a TAOS assessment which reviewed factory conditions and pinpointed a few areas for improvement. Throughout our working relationship, many areas related to worker safety were improved, including everything from printing information about evacuation routes to providing additional protective equipment. They also improved payment of agency workers and stopped the use of disciplinary fines.

Beyond improving basic working conditions, we also planned to implement a Worker Welfare Fund. This fund aims to promote dialogue between employees and management, which includes training employees to voice their suggestions and concerns as well as contribute to implementing improvements. However, both parties soon found that making progress was harder than we had anticipated.

The challenges were plenty, and the solutions few. We faced continuous legal and bureaucratic obstacles from Chinese union laws and banking requirements. Add to that component shortages and irregular Fairphone production, and we found ourselves surrounded by complicated issues without a clear middle ground. These challenges translated into more than two years of discussions and negotiations regarding the fund. Despite a genuine willingness to explore the topic of worker welfare together, in the end we decided to end this specific initiative at Hi-P.

This experience taught us some valuable lessons for our future approach to improving worker welfare. For example, we're presenting our partners with a clear business case for implementing improvements, and adding key performance indicators on working conditions to the manufacturing contract.

Even though this was not the result that we hoped for, we are grateful to Hi-P for the time they invested in this process, and for their receptiveness to work with a small new client like Fairphone. We will continue to work with them to produce the Fairphone 2 and related spare parts.

A collaborative audit and mobile survey offer new insights into worker satisfaction

Audits are one of the most common tools used for evaluating worker welfare. But because they often focus on checking company policies, licenses and administration, and frequently involved a limited number of workers, we suspected that the information gathered doesn't fully capture the perspective and satisfaction of the employees. So to test our hypothesis, we partnered with KPN and Vodafone to commission and fund an audit and mobile employee satisfaction survey at Hi-P. It was completed by independent third parties and led to concrete recommendations and improvements.

The employee survey, facilitated by Laborlink, took an innovative approach by enabling employees to give feedback using their mobile phones. This made participation more convenient for workers and allowed them to share their honest opinion of the workplace. The results were quite positive: a majority of employees (86%) would recommend working at Hi-P to family or friends and 97% said they always feel safe at the factory.

The other half of this project was the Joint Audit Cooperation (JAC) audit, which was conducted by SGS. It included a review of the administration, confidential interviews with a group of employees and an on-site observation (visiting the factory and looking around). The audit found 10 points for improvement, of which five were successfully solved by 31 Dec 2017.

Motivational poster from Hi-P factory.

One of the major points for improvement discovered by the audit was related to working hours across the entire factory. During peak seasons, there was evidence of employees working up to 70 hours a week. There were also instances where employees worked for 14 days in a row without a day off. While these long hours weren't related to Fairphone production, they were still cause for concern. Our goal is to improve whole industry, after all, not just our own product.

To us, those numbers sounded excessive. But this is an excellent example of how conventional auditing does not always reflect the perspective of employees. While we believe that no one should have to work such long hours, the mobile employee survey revealed that 72% of the employees want to work as many hours as possible, and 100% of the employees confirmed that all overtime was voluntary.

So what do we do when our ideas about improving working conditions don't align with the opinions of the factory employees? As long as the hours remain this extreme, we believe it is our responsibility to continue striving for better working conditions. However, we have also realized that it's important for us to keep listening, and to keep improving the workers' ability to speak up for themselves. We have not yet found a solution to this issue, and monitoring of working hours is ongoing. As part of this, Hi-P shares working hours with Fairphone on a monthly basis, including working hours on non-Fairphone production lines. We remain committed to supporting Hi-P in finding ways to manage working hours.

While this was only our first attempt with mobile employee satisfaction surveys, this pilot project clearly demonstrated that they can reveal helpful new insights that go beyond the findings of standard audits. We plan to keep experimenting with innovative ways of assessing employee satisfaction, and would like to thank Vodafone and KPN for helping make this project possible.

While we believe that no one should have to work such long hours, the mobile employee survey revealed that 72% of the employees want to work as many hours as possible, and 100% of the employees confirmed that all overtime was voluntary.

Applying the finishing touches on one of our cases at Broadway.

The dilemma of working long hours: a quick look at a complex issue

The findings on working hours uncovered by our mobile employee survey highlights a recurring culture clash in our efforts to improve working conditions. We, like many other brands and consumers, believe that an ideal work week consists of about 40 hours of work, spread over five working days, with two days off. However, at our manufacturing partner, 72% of the employees surveyed said they want to work as many hours as possible, and 100% of the employees confirmed that all the overtime they worked was voluntary. So why is there such a mismatch between our Western concept of work/life balance, and the perceptions of many Chinese factory workers?

There are many complex factors at play, and we certainly don't have all the answers. However, our increasing experience working with Chinese manufacturers as well as discussions with experts in our field has provided more insight into the reasons behind the drive for longer working hours.

One major issue is that factories are often located in cities, where daily life is expensive. The legal minimum wage isn't adequate to cover the cost of living there. Working 40 hours a week for this wage would make difficult to pay the bills — driving workers' desire to work extra hours.

Beyond the low levels of pay, age and long-term goals may play a role. Many young, ambitious workers move from small towns to work in factories with the aim of earning money as quickly as possible. Some might be saving up to finance future plans. Others might need to support their parents or put younger siblings through school. Regardless, workers are often keen to put in long hours… and due to the labor shortage in China, employers strive to give them what they want. Employees in China are known to quit their jobs if overtime hours aren't available.

Finally, unreasonably short production timelines imposed by electronic brands, as well as late deliveries of components from suppliers, put additional stress on manufacturers. Long working hours are therefore often a symptom of other systemic issues in the electronics industry, which takes time to address.

Obviously, we still feel that no one should need to work such long hours to earn a living. But we've also learned that simply cutting working hours is not the right approach to improving worker satisfaction. Together with our partners, we'll continue to search for ways to make incremental improvements.

A still from documentary Zeit Für Utopien, team members Laura and Remco discussing factory life with a worker representative at Broadway.

Other 2017 worker welfare highlights

Fairphone's Ways of Working Together

Fairphone wants to work with partners who understand our ideals for creating a fairer economy. Our goal is to build lasting relationships based on transparency and trust.

Fairphone's 'Ways of Working Together' document summarizes our expectations regarding the policies and operational practices of our various partners, and is used as a framework to assess and increase responsible business practices. If the ideal conditions aren't met at the start of our business relationship, we will work collaboratively with our partners to identify the root cause of the issues and develop a plan for sustainable improvement.

The latest version of our Ways of Working Together document was updated in September 2017.

3Sun: A great start ends too soon

In 2016, we began a new partnership with 3Sun Electronics to produce the batteries for the Fairphone 2. 3Sun is a component manufacturer who was keen to collaborate on improving working conditions at their factory. An early audit had identified a number of possible points for improvement. A 2017 follow-up audit, carried out by the independent third party Impactt, found that 80% of the points for improvement were solved or had made progress.

Key steps taken:
- Set up a union to encourage workers to voice concerns and suggestions
- Implemented a bonus system to encourage positive behavior
- Implemented a new hours registration system that also alerts human resources if an employee is working excessive hours
- Developed a policy for grievance mechanisms
- Improved the suggestion box review process

A change in 3Sun's manufacturing focus (ending smartphone battery production) meant an end to our partnership, but we're still pleased with the progress we made together on worker welfare.

Reuse and Recycling

As a manufacturer,
we're part of the e-waste problem.
That's why we need to collect
more than we create.

Why we need to increase reuse and recycling

How we're making an impact

Every year, consumers throw away millions of mobile phones. And when that happens, we're literally throwing away gold... And titanium and lithium and dozens of other resources that have years, decades, or even centuries of life left in them. Part of this is driven by our desire to constantly upgrade our devices, but it's also down to a linear production model that accelerates the flow of resources from factory to consumer to waste.

We believe that there's a better way. Fairphone envisions a circular economy — where resources are used and reused in an infinite loop. But the industry isn't built to support this goal. Current take-back and recycling programs aren't sufficient, and far too much electronic waste ends up in landfills or is recycled under dangerous conditions. On top of that, only a small percentage of phones are ever sent in for recycling — the rest are stuck in drawers around the world.

Our goal is to maximize the use of the materials in our phones and keep them at their highest possible value for as long as possible. We're working to develop solutions from two different angles; first, we're focusing on repairability and recyclability, which for us go hand in hand. That means we're looking at ways to optimize the recyclability of our products when they can no longer be used. In 2017, our biggest achievement in this area was an in-depth study to examine the best recycling methods for the Fairphone 2.

Second, we're using reverse logistics to improve the reuse and recycling of smartphones — both Fairphones specifically and phones in general. As part of this goal, in 2017 we began selling the Fairphone New Life Edition (a factory-refurbished Fairphone 2) and researched a new business model for Fairphone as a service. Finally, we've continued our efforts to collect old phones in Europe and Africa for reuse and safe recycling.

Every year, the industry puts more than ten million tons of electronics into the market* and only a third of it is actually reused or recycled**. That figure is even lower for small devices like smartphones, but there are currently no official statistics. As demand grows and resources diminish, we have to do better!

Previous page: A sample from our collection program in Ghana.
Right: Electronic waste piling up in Agbogbloshie, Ghana.

Source : Eurostat

*   10,091,198 tons in 2015
**   3,803,187 tons in 2015

How to recycle our phones?

Complex products like smartphones are much trickier to recycle than most people realize. Electronics recycling relies on a combination of dismantling, shredding, physical sorting and further metallurgic processes (read: melting!). But no matter which method is used, it's impossible to extract all the materials that originally went into making the phone, mostly due to thermodynamic constraints. In short: you win some, you lose some. In addition, recycling also consumes energy, meaning to material recovery still comes at a cost to the environment.

As part of Fairphone's goal of moving towards a circular economy, we wanted to learn more about the options at the end of our phone's usable life. We also wanted to contribute to the industry's overall understanding of recycling options. By introducing Fairphone 2 as the world's first modular smartphone, we figured that this design could potentially improve recycling and recovery of precious materials. But the validity of that claim still needed to be proven.

So, in 2017, we commissioned experts Dr. Antoinette van Schaik (MARAS B.V.) and Prof. Dr. Dr. h.c. Markus A. Reuter (Freiberg, Germany) to conduct a study on the recyclability of the Fairphone 2. As expected, the calculations were far from simple. The experts had to deal with a complex product containing a huge range of materials, as well as completing a detailed analysis of energy use at each step of the various recycling processes.

This recyclability study was made possible thanks to funding from the European Union's Horizon 2020 research and innovation program as part of the SustainablySMART project.

The first step in the process was to compare various recycling methods and to investigate if a modular design would enable the most efficient recovery of the greatest amount and variety of materials. In addition, we also looked at the environmental footprint of each of the methods, to find out what would be the most sustainable route.

Right: Phone collection in Ghana is calculated by weight.

Three potential recycling routes

The study identified and analyzed three different recycling routes that could potentially be used for the Fairphone 2, based on current options using the best available techniques.

While recycling offers a wide range of benefits for a circular economy, it's not necessarily the panacea it's made out to be. Electronics recycling requires a great deal of energy — meaning that it also comes with an environmental cost. Our experts considered energy use, metal depletion and the role of plastics. While plastics can sometimes be recovered in a reusable form, they can also be used as fuel or reductant during the recycling process. So plastics can actually create energy and offer an environmental advantage in the recycling routes

Route 1: Total smelting

Feeding whole Fairphones into a high-temperature metallurgical furnace, recovering the materials mainly as metals, alloys and inorganic compounds while also using embodied energy of plastics.
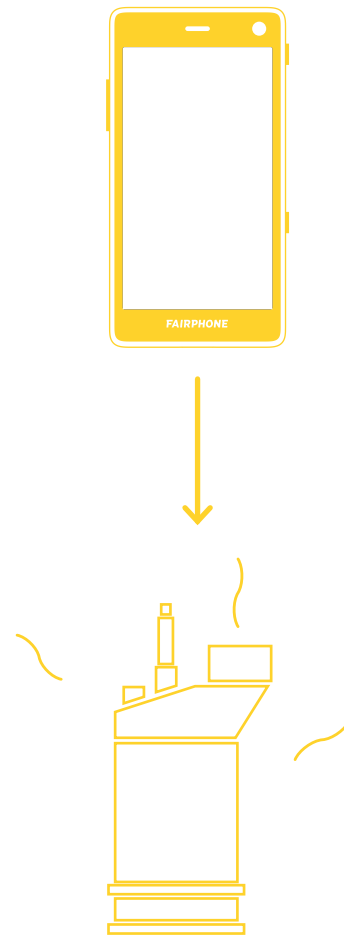
TSL Furnace

Route 2: Dismantling

This route allows for selective smelting: separating Fairphone 2 modules and putting them through the most suitable metallurgical and plastic recovery processes.
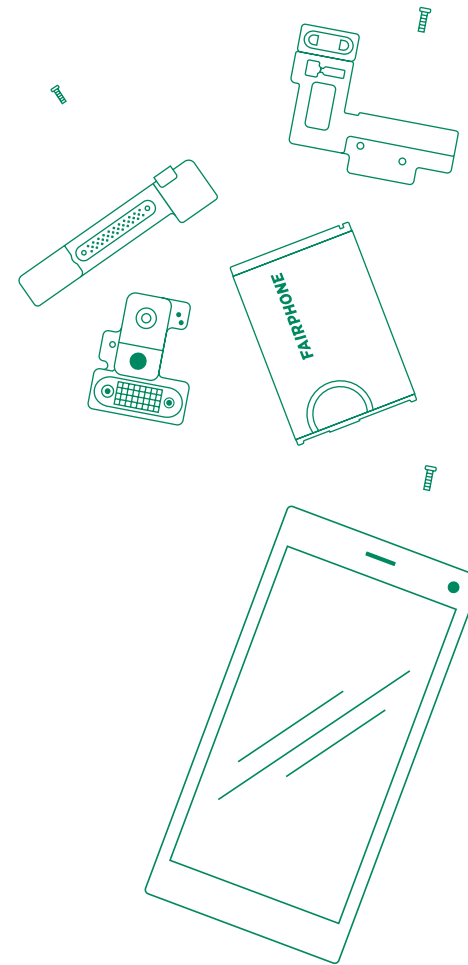
Route 3: Shredding

Physical processing and metallurgy: removing the battery and feeding the rest of the phone through a cutting mill. The resulting scrap is then separated into the relevant processing streams (metallurgy, refining and plastic recovery).

The best recycling scenario for the Fairphone 2

How did the three routes compare?

- Route 1 (smelting) offered the lowest percentage of recovered materials by weight (14% metal recycling, 25% total material recycling and 36% recovery [= recycling + energy recovery] for all materials), as well as a poor range of materials recovered. Also, route 1 uses all the plastic as fuel or reductant, meaning none of the plastics are recovered after recycling.

- Route 2 (dismantling/selective smelting) offered greater recovery of materials by weight (19% metal recycling, 28% total material recycling and 31% recycling/recovery) as well as the widest variety of materials recovered. Some of the plastic can be used as fuel and some can be recovered and reused as recycled plastic.

- Route 3 (shredding) offered the highest percentage of materials by weight (22% metal recycling, 30% total material recycling and 31% recycling and recovery). It means this route is the best for recovering bulk (non-precious) metals, normally present in large quantities such as copper or steel. But the variety of materials recovered was more limited than route 2. In route 3 most of the plastic is used as fuel or reductant; very little is recovered as usable plastic.
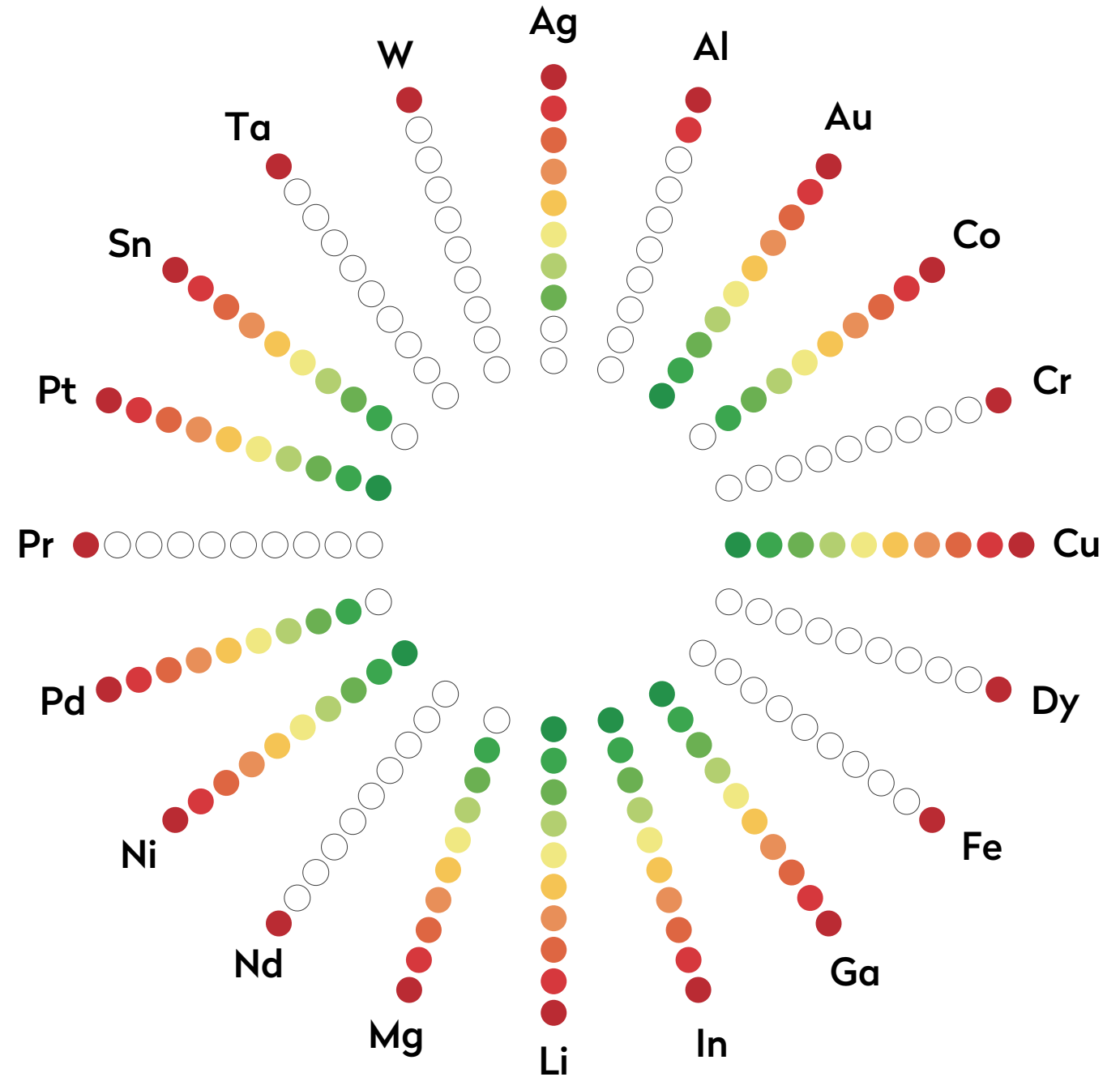
So which route is the best option?

Based on the combination and variety of recovered materials and the effort that has to be put into physical processing, recycling route 2 is the best option for recycling the Fairphone 2. Not only in terms of material recovery; it shows the best balance of energy creation and plastics recycling while minimizing CO2 emissions.

Because this method relies on partially dismantling the Fairphone 2 and its modular components, it also offers a strong argument in favor of our modular design approach.

By completing this study, we've gained new insights into the best way forward for our recycling and circular economy goals. The findings will help shape how we manage the end of life of our products, such as the types of recycling partnerships and methods we pursue in the future. The results will also influence our ongoing product design decisions, like continuing to explore the benefits of modularity. The study has been valuable for revealing the limits of recycling and has strengthened our conviction that repairability and lifetime extension are just as important when it comes to getting the maximum value from the materials used in our products.

Right: This graph shows the percentage of materials recovered using Route 2, developed by Van Schaik and Reuter. Percentages are based on weight of all 20 selected materials.

Route 2: Material recovery rate

| | 0-10% | | 20-30% | | 40-50% | | 60-70% | | 80-90% |
| | 10-20% | | 30-40% | | 50-60% | | 70-80% | | 90-100% |
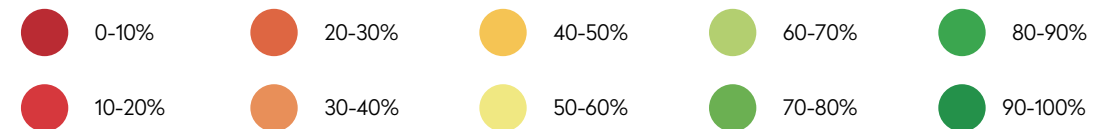
Collecting used phones, from Africa to Europe

At Fairphone, our aim is to improve the entire life-cycle of mobile phones. Modular design and easy reparability help to reduce e-waste, but we also need to create ways of encouraging people to recycle their old and broken phones. With an estimated 1.6 billion unused phones languishing in drawers and cabinets all over the world, this is no small task. To achieve our ambition of a circular electronics industry, we're working with a variety of partners, including Closing the Loop, a Dutch social enterprise, and Recell Ghana, a Ghanaian entrepreneur.

Our initial collection efforts started in 2013. With the support of Fairphone owners, our first e-waste project helped our partners collect three tons of waste phones in Ghana, where no formal recycling infrastructure yet exists. The e-waste was recycled in Belgium by Umicore, reclaiming a range of reusable materials. We have since launched new projects with these same two partners, who are busy collecting old phones in Uganda, Rwanda and Ghana.

As a result, in 2017, we helped Closing the Loop collect **18,000** scrap phones and PCBs from Uganda and Rwanda. In July 2017, Fairphone joined Closing the Loop, press and interested companies to celebrate the arrival of the shipment in Antwerp. After being recycled, the containers of e-waste enabled us to reclaim an estimated **75 g** of gold, **403 g** of silver, **4 g** of palladium and **83 kg** of copper. This was another great step in preventing e-waste from ending up in landfills, plus an important message to the industry that it's possible to successfully collaborate with like-minded partners to get closer to a circular economy.

Left: Sylvain and Miquel (left) opening the container of scrap phones in Antwerp with Closing the Loop's Reinhardt and Joost (right).
Top: Checking out the phone collection program at our partner Recell Ghana.

Key Performance Indicator: Return rate for reuse and recycling (per device sold)

Why it's important

Globally, it's estimated that less than 10% of all phones are returned for recycling. This represents a massive waste of usable components and rare minerals, not to mention unnecessary resource depletion and carbon emissions caused by creating and shipping new phones. To reduce the amount of electronic waste generated by our product — and the electronics sector as a whole — we aim to increase the return and recycling rate of phones from the Fairphone community.

Where we are in 2017 — 0.52% return rate (per Fairphone 2 sold)

We're promoting our recycling program in Europe through our website, in the Fairphone community, and via our new user welcome emails. This targets all old and obsolete phones (not just Fairphones) that are sent to our partner, Teqcycle, from countries where we operate. This indicator represents the number of phones sent in for recycling from 1 July 2017 to the end of the year, divided by the number of phones sold from 1 July 2017 (the moment we actively starting pushing the recycling program) to the end of the year. Our target for 2018 is a 7% return rate.

Increasing return rates in Europe

We're researching potential economic incentives for our customers, as well as take-back initiatives with our sales partners. In addition, since our inception in 2013, we are supporting return and recycling of e-waste in Africa and have gathered close to ten tons of old phones so far. But for this key performance indicator, we don't include those phones: we only measure the impact of our efforts within our own markets in Europe.

Similarly, we're also supporting phone collection in Ghana with our partner Recell Ghana. In September 2017, two members of the Fairphone team — Lina Ruiz and Miquel Ballester — traveled there to learn more about what was happening on the ground, assess the status of the project and discuss future activities. Accompanied by representatives from Recell, they visited the e-waste site Agbogbloshie, got new insights into the collection process, and learned more about local livelihoods and the role of electronics repair and recycling. They also stopped at five of the collection points and inspected the warehouse full of phones that had already been collected.

During their research trip, Lina and Miquel were accompanied by a journalist for France 24. Lina and Miquel also made and shared a total of 7 video diaries for our community on Facebook, to give people first-hand insights into this important work on the ground.

By the end of 2017 Recell Ghana's collection efforts resulted in almost four tons of mobile phones, to be shipped to Europe for safe recycling in 2018.

In Europe, despite the fact that there are plenty of responsible options for getting rid of old or broken phones, not enough people take advantage of them. With our recycling program, we encourage the use of local drop-off points for older phones, and for newer phones we ask Fairphone owners and fans to send their phone to us by providing them with a free shipping label. These phones can be reused or recycled (depending on their condition).

E-waste is a massive issue that can't be solved by Fairphone alone. But despite the daunting task ahead of us, we're slowly exploring new solutions and finding ways to innovate, with the goal of stimulating the electronics recycling industry as a whole.

Creating phones and collecting e-waste

27,421
Phones placed in the market (Kg)

8,546
Phones taken back (Kg)
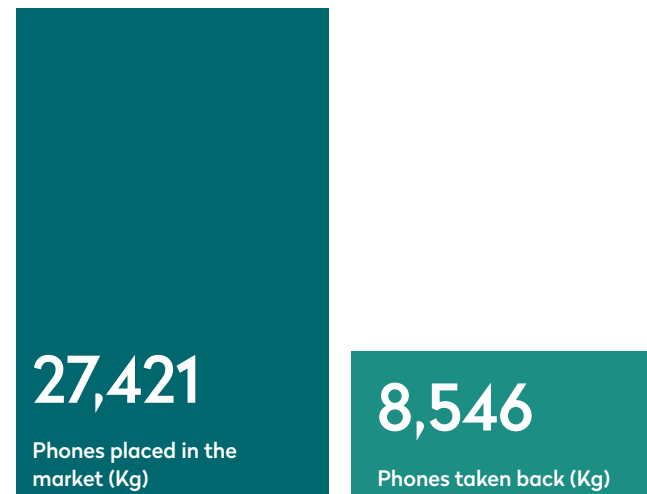
Our Movement

Movers. Shakers. Makers.
Coders. Hackers. Techies.
Leaders. Fighters. Activists.
These are just a few of the members
of the Fairphone movement.

We're a movement, because our mission is to make something move. Together we can create a shift in how the electronics industry operates. We won't stop until "fair" is just a natural part of doing business. Until then, we'll continue to unite our community of supporters, customers, business partners and industry collaborators under the rallying cry #WeAreFairphone.

Why we're a movement

(and so much more than just a company)

Who makes up our movement?

177,446
social media followers

130,050 Facebook, 32,265 Twitter, 9,154 Instagram, 5,977 LinkedIn

Our vocal collection of fans, friends and followers help us amplify our successes, plus debate challenging topics to keep us on our toes.

150,000

(cumulative)
Fairphone owners

The people who put their hard-earned money into our phone and what it represents, proving that there's a market for ethical choice and an entire community of people hungry to change their relationship to technology. They're the ambassadors of a new era.

25
B2B partners

When companies believe that business and ethics can be compatible, it's a major step in the right direction.

59,495
newsletter subscribers

A collection of like-minded souls who want to be the first to hear our news, and help us spread our message far and wide.

17,678
forum members

Our most active community members discuss big ideas, come up with creative solutions and offer each other a helping hand.

Creating a community
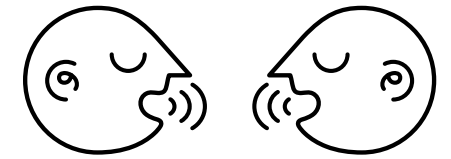
Partners and friends

Everything is better when you do it together. Our expert partners help us achieve far more than we ever could on our own.

3SUN
ABN Amro
ActionAid
AIM
Allen & Overy
Alpha
ASN Bank
AT&S
AVX
B-Corp
Bethnal Green Ventures
Better Sourcing Program
Broadway
CCR CSR
Circle Economy
Circularise
Clean Electronics Production Network
Closing the Loop
DOEN Participaties
Dutch Ministry of Foreign Affairs
Economic Rights Institute
European Partnership for Responsible Minerals
Fairtrade Foundation
Fraunhofer Institute for Reliability and Microintegration IZM
Hi-P
Hivos
iFixit
iTSCi
ING
KPN
KOTL
LaborLink
Max Havelaar
MVO Nederland
Nederland Circulair
New Bugarama Mining
PGGM

PYMWYMIC
Recell Ghana
Responsible Minerals Initiative
Rijksdienst voor Ondernemend Nederland
Royal Philips
Seymour Powell
Signify
Social Enterprise NL
Solidaridad
Solutions for Hope
SOMO
Stop Child Labour
Sustainable Finance Lab
Teqcycle
The Dragonfly Initiative
The Impact Facility
Unicef
Valcambi
Vodafone
Voor de Wereld van Morgen
Waag Society
Wolfram Bergbau und Hütten AG

Once we started selling phones, it was our community that helped make production possible. The fact that our first phone was crowdfunded solidified this growing sense of community; while everyone was waiting for the phone to be produced, they turned to each other to talk about the mission and the product.

Many Fairphoners are essentially extensions of our enterprise, solving technical issues for other users, building operating systems, testing new products and sharing knowledge outside of the immediate Fairphone community. It's the mission behind the phone that brings people into the community; it's the future inspired by the phone that keeps them here.

Fairphone Angels

Fairphone Angels are truly heaven-sent. These extremely active community members took the initiative to create a special network of super-helpers who offer assistance to Fairphoners in their local area. Their hard work is helping us to build local networks and to spread the word about the power of longevity, all while assisting the Fairphone Support team with updates, repairs or simply showing people how to make the most of their phones.

Free Libre & Open Source Community

Fairphone happily embraces the open source movement for fully transparent, shareable, user-tweakable software. Besides aligning with our "open-it-up-to-understand-it" mentality, longer-living phones and increased security are just some of the benefits open source software has to offer.

The Fairphone 2 comes with two standard operating system (OS) choices: Fairphone OS (which includes Google Services and other non-open software), and Fairphone Open, which comes with the tools to enable root access and no Google Services installed. In addition to these, the Fairphone community has built four other operating systems for our phones:

- Sailfish OS
- Lineage OS
- UBports OS
- Postmarket OS (currently in alpha)

The real power of open source for Fairphone is that when we can no longer support a phone, our community still can. Postmarket OS, for example, is an operating system specifically designed for older devices that may struggle to run a more up-to-date OS. These types of community projects enable people to use the same hardware for a longer period, empowering Fairphone to achieve its goals from the ground up.

Community members
share their stories

Stefan
Austria

Fairphone 1 owner,
forum member,
Fairphone Angel,
active community
member since: August 2014

In late 2014, I was contacted by another Austrian Fairphone owner for help repairing a broken screen. We decided to host a meetup in Vienna — the very first Fairphone community meetup in the world. This led to the foundation of the Austrian Fairphoners that December. As a group, we found that many issues with your phone can best be resolved locally and in person. So, one major motivation for the Angels program was to relieve the Fairphone Support team by enabling local support from fellow Fairphoners.

Secondly, the Angels Program empowers us to professionalize the Fairphone community. It's a small skill-sharing network of dedicated community members, who offer to serve as a contact person in their town or region. This benefits the community as a whole — active members and passive Fairphone owners — because it makes it easier to get in touch with other Fairphoners in your area.

Last but not least, the Fairphone Angels program is a way to foster engagement by community members who already are very active in the forum, but haven't made the "jump" to the real world.

The initial conception of the program itself was time-consuming, but now that everything is in place and workflows have settled, it's not too much work. We started the pilot phase of the Fairphone Angels program in Vienna in March 2017 and by March 2018 we had handled about 50 requests (only a few had to be rejected because we didn't have that spare part in stock).

One of my favorite moments of involvement with the program was attending a meetup with some Hamburg Fairphoners, which evolved into a local Angels group with three members! My dream is a strong network of local Fairphone communities all over Europe, and maybe someday in other parts of the world too. At the time of writing this, there are 27 Fairphone Angels in 17 so-called "heavens" (cities/regions), eight of them in Germany.

In the future, I would love if Fairphone could make the phone more affordable for young people (FIRST UNDERAGE BONUS FOR A SMARTPHONE FTW!). I'm also excited to see how support for the Fairphone 2 progresses — I still have my Fairphone 1 but I hope to be able to recommend the Fairphone 2 to my friends because it is still well supported after over two years.

Paula
Austria

Fairphone 1 owner,
Fairphone 2 owner,
forum member,
Fairphone Angel,
active community
member since:
December 2014

I had always used iPhones before, but when planned obsolescence kicked in, I did some research for a more ethical option. I quickly fell in love with the Fairphone. It gave me a good feeling owning a device that was built under better circumstances than all other smartphones. When the Fairphone 2 came out as the very first modular smartphone, that blew my mind. After I purchased one, I used my Fairphone 1 as a secondary device until I donated it to our Austrian Fairphoners' spare parts stock. I couldn't imagine ever going back to an Unfair Phone!

Every day on the forum I learn new things. After just a week of owning the Fairphone 1, I joined the forum to proudly post about all the cool free software apps I was using and how easy it was to avoid big companies that harvested your data. There were a lot of discussions about many different subjects, like sustainability, (free) software and DIY stuff. I really liked the feeling of community spirit at the first meetup I was invited to in Vienna. I also liked that the Fairphone was a device that was quite easy to repair, and people on the forum all seem to be willing to do that rather than send the phone somewhere for repair or even get a new one.

In 2017, I loved visiting Amsterdam and the Fairphone team on our Community trip. We have also been busy in Austria, with meetups, festivals and the newly implemented Angels Program. And of course I have been very active in the forum. There were a lot of great moments there: the launch of the (now official) Lineage OS community port for the Fairphone 2, the new community logo, and the introduction of the forum's marketplace. My favorite moment might have been when I came out as transgender to the community and all the support and approval I got in return.

In the coming year, I hope that Fairphone manages to improve spare parts availability and shorten the response time in the support team. Of course I also wish for a Fairphone 3, and that Fairphone manages to increase their positive impact in the world. I wish Fairphone and our community all the best for 2018!

Iratxe

Basque Country (Spain)

Fairphone 2 owner,
forum member,
Fairphone Angel,
active community
member since:
August 2016

I observe a way of how things are being done: reality. I am inspired by a way of how things could be done: possibility.

I saw in Fairphone a group of human beings, creating a company as a means to move towards new possibilities; a new way of doing things; a new way of developing a product; a new way of building a company that cares and contributes to a more sustainable life and a more empowered society that cares for all. By owning a Fairphone, I develop a personal step to align my action to my vision. And I contribute my energy to the healthy development of a group of allies that are putting their energy to move real boundaries towards a fairer possibility.

It was important for me that Fairphone sees itself as a "work-in-progress" company; improving and improving, step by step, to widen their real impact. I deeply resonate with that effort, with the aspiration behind it.

Soon after I received my Fairphone 2 I participated in the Community trip to Amsterdam. That summer was very important for me and my connection with the Fairphone Community. My participation in the forum and with the Community in general has increased after that. I felt that I was accompanied by other "partners"; I know and can connect with them, and feel like we are a team. I feel part of not only a "movement towards fairer electronics", but a movement towards a fairer and smarter world becoming real.

In 2017 I helped to organize a local community meet up in Vitoria-Gasteiz, helped to set up the Bilbao Fairphone Angels, and ran a workshop at the #EFCT17 (the Fairphone Community meet up in the Amsterdam office). After that workshop we agreed to start a new initiative in the Community: SYNAPSE inspired by Fairphone movement.

In the future, I would like Fairphone to improve their customer support and maybe a battery that could live longer. In 2018 I hope Fairphone continues thriving (as I think it is). I hope Fairphone makes an even bigger impact, and I hope the company successfully sustains the vision of its beginning while growing in team members, users and challenges!

Christoph

Germany

Fairphone 2 owner,
forum member,
DIY techie extraordinaire,
active community
member since: October 2017

I am a big fan of fair and sustainably produced goods and products, plus I like new and complex technology. The Fairphone is a combination of both and I found that appealing, so I bought a used Fairphone 2, which was in perfect condition.

The Fairphone community is a very open and friendly one; the perfect environment for ideas and problem solving. You can get help with your problems and it feels very good to help others with problems they have in return. As I started tinkering with the phone, I began to post on the forum and discuss my ideas with community members. Many people were highly interested in my ideas about possible extension boards.

Last year I built two extension boards for the Fairphone. The first one added touch buttons to the back of the Fairphone 2, and the second one is a development board, which makes it easy to realize and build your own ideas. Quite a few of the boards I developed were shipped to other community members and I hope many others will join this DIY movement. In 2017 I also took part in Jugend Forscht (a German competition for young, science-loving people) with the boards I made for the Fairphone 2 and won the second place in my category.

I believe that OpenSource is the future of modern technology. In 2018, I would love it if Fairphone released the schematics of modules. It would make repairs easier and additional hardware could be better adapted to the specifications of the phone. I would also love to see hardware updates for the core modules to keep the phone more up-to-date. Fair and sustainable electronics are the future and definitely an important step to a better world. Furthermore I hope that more people join the DIY movement, start creating their own extensions, and teach others how to do such things!

Life on the road: Connecting with our audience across Europe
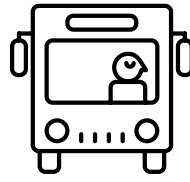
Whether we're explaining modularity, discussing responsible supply chains or just demonstrating easy repairs, sometimes the best way to show what makes Fairphone different is to do it face to face.

That's why going to events is such an important part of what we do. It's an effective way to share our vision with a global audience while growing the demand for fair electronics and inspiring the wider industry to act differently. And besides making new connections, events provide great opportunities to catch up with existing community members that form the core of our movement.

Left: Team member Michiel at festival "de Beschaving", Utrecht, Netherlands.
Right (from top to bottom): Team member Lina at Heldenmarkt, Berlin, Germany; Team members Luke and Tina-Marie at an Orange Convention, Deauville, France.
Next page: Team member Monique discussing electronics recycling at Mobile World Congress 2017.

Where did we go in 2017?

23
Event Presentations
Including:
National Sustainability Congress, The Netherlands
Empodera Live, Spain
AMSXtech, Netherlands
DINAcon, Switzerland
Emerge, University of Oxford, UK
MakeMunich, Germany

4
Workshops
Including:
Urban Mining workshops
Circular Economy workshop

9
Fairs & trade shows
Including:
CID (Orange), France
Mobile World Congress, Spain
Heldenmarkt, Germany
Fa La Cosa Guista, Italy
IFA, Germany
The Next Web, Netherlands

13
Exhibitions
Including:
Danish National Museum for Science and Technology, Elsinore, Denmark
London Design Museum, London, UK
Museum Boijmans van Beuningen, Rotterdam, Netherlands
COMM — Museum for Communication, The Hague, Netherlands
Landesmuseum, History of Technology Gallery, Linz, Austria

Putting sustainability on the global tech agenda at MWC

"The Mobile World Congress is all about trends, and we believe that the next major trend should be sustainability," said Bas van Abel of the 2017 MWC in Spain. This was the first year we had our own booth at the Congress, and we did our best to put the message of sustainability front and center. This included participating in the Mobile Social Congress, NEXTech lab, Mobile Sunday, Urban Mining Workshop and press conference, offering great opportunities to share our mission and points of view.

For us, the other theme of the MWC was partnership: at the Ubuntu stand, our partners UBports showed off a Fairphone 2 running Ubuntu. Teclib shared our booth for a day to demonstrate their Uhuru Mobile on the Fairphone 2 and security solutions. iFixit and Fraunhofer IZM participated in a panel at our press conference. And the Dutch pavilion, run by the Enterprise Summit, helped us generate lots of attention from business audiences. During the event, the city of Barcelona announced that the Fairphone 2 will be included in their mobile portfolio for senior executives. And we also announced partnerships with Mediaworld and Gogreenstore in Italy!

One highlight of the event was the coverage of Fairphone on CNN, putting modularity and sustainability on the global tech agenda.

What our movement moves: impacting our industry
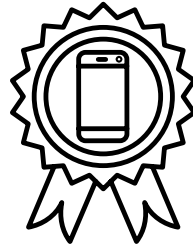
We set out to prove that it's possible to make a phone in a fairer, more ethical way. But the movement we've built isn't really about Fairphone; it's about inspiring others to make our industry — and our whole economy — fairer.

Our industry influence may be challenging to quantify, but in the five years we've been active in the market, there is ample evidence that we're making an impact. Our numerous awards prove we're raising the bar and gaining recognition for our efforts. Our global media coverage and inclusion in research papers shows we're putting important issues on the agenda and stimulating public debate. Finally, the collaborations we're part of and the comments we receive from our industry (and far beyond) confirm that others are starting following our lead. We want other brands to join us, and work with us; to make what is "special" and "unique" about Fairphone the industry standard, instead of the exception.

Awards and other external recognitions let us know that we're setting an example and raising the bar for the electronics industry and our peers in the sustainable business sector.
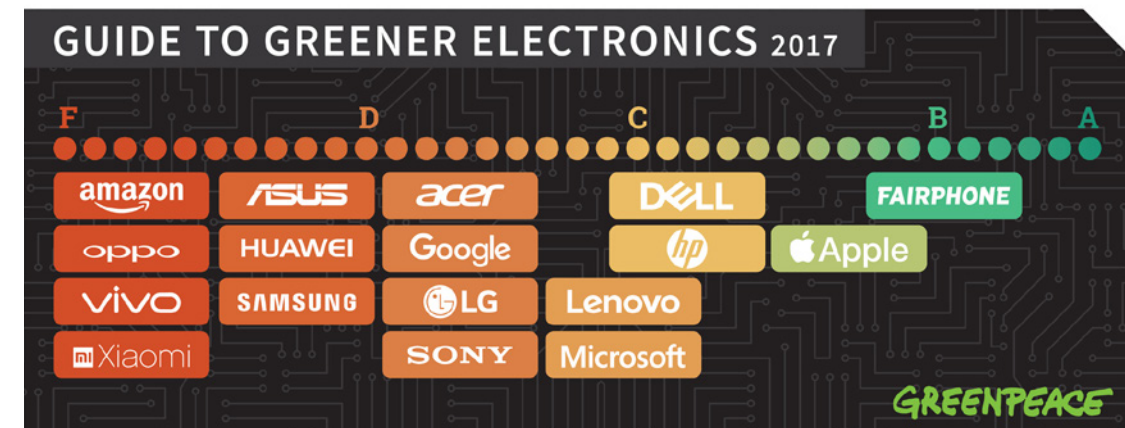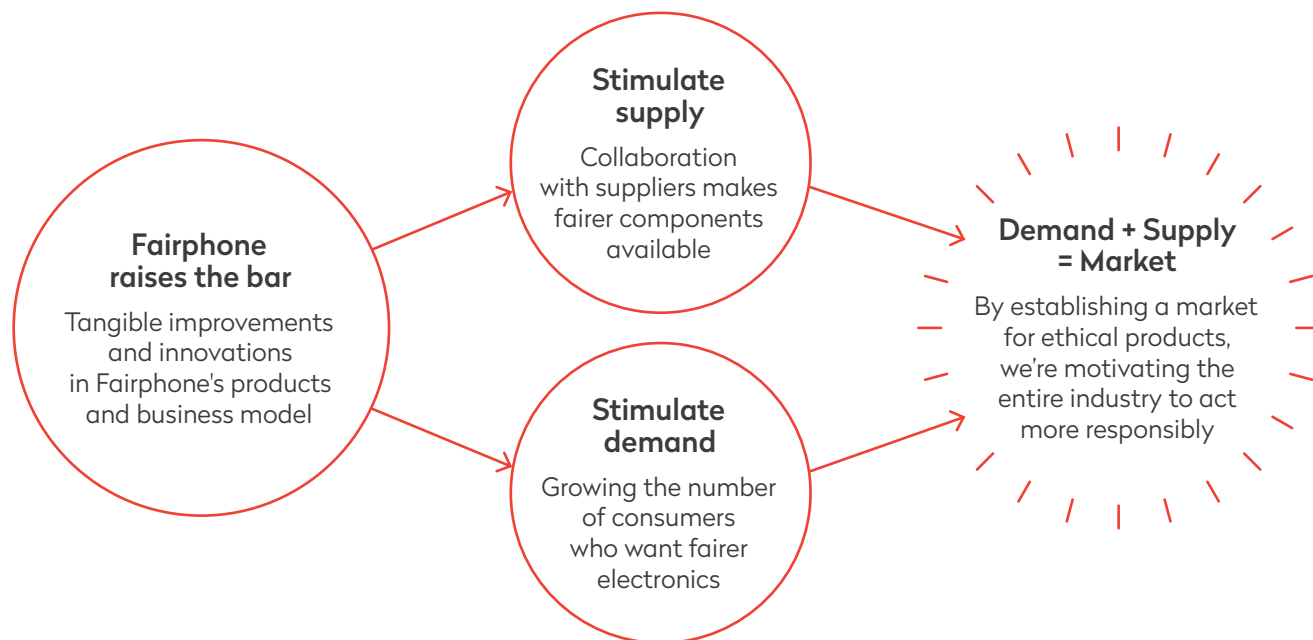
2017

- Fairphone earned the top score in Greenpeace's 2017 Guide to Greener Electronics
- The Fairphone 2 won Gold at Cannes Lions 2017 for Product Design in the category Sustainability and Environmental Impact
- Green Product Award in the category "Consumer Electronics Newcomer"
- Premio Natura — for Fairphone 2 in category "Telefonia"
- International Business Cooperation Award — 2016/2017 European Business Awards for the Environment
- 10/10 iFixit + Greenpeace repairability score in 2017 report for Fairphone 2 = highest score

2011 — 2016

- German Environment Foundation
German Environmental Award 2016 for our founder Bas van Abel
- The Lovie Awards 2016
Lovie Emerging Entrepreneurs
- European Business Awards for the Environment (EBAE) 2016
The International Business Cooperation Award
- d&ad 2016
White Pencil in Service Innovation and Graphite Pencil in Product Design
- Dieline Outstanding Achievement, for Fairphone 2 Packaging in the Technology, Media, Office, & Self Promotion category (2016)
- The Next Web 2015
Tech5 — Fastest Growing Tech Startup in Europe
- GreenTec Awards 2015 ProSiebenSat.1
- Accelerator Start Up Prize
- UN Momentum for Change Award 2015 ICT Solutions
- Sustainia 2014
- Community Award
- ASN Bank, Voor de Wereld van Morgen ASN Wereldprijs (2011)

Theory of Change
Fairphone produces an ethical phone to raise the bar, thereby creating a market for the electronics industry.

Fairphone raises the bar
Tangible improvements and innovations in Fairphone's products and business model

Stimulate supply
Collaboration with suppliers makes fairer components available

Stimulate demand
Growing the number of consumers who want fairer electronics

Demand + Supply = Market
By establishing a market for ethical products, we're motivating the entire industry to act more responsibly

GUIDE TO GREENER ELECTRONICS 2017

Press coverage puts our work in the spotlight

Spreading the Fairphone word outside of our immediate community is one of the most important ways to raise awareness of what we're doing and to influence the change we want to see. We're proud that our hard work makes the Fairphone story so compelling; people really want to be a part of that story, and, thanks to our radical approach to transparency, journalists want to cover it. For a small company without a significant advertising budget, we have still earned an impressive amount of media exposure, both for our products *and* the issues we work on. In 2017 our media coverage was worth over €49 million in equivalent advertising value. Bringing the discussion about fairer electronics into the mainstream is a crucial contribution to our movement, amplifying Fairphone's message and inspiring wider industry change.

2017 media coverage

5166 mentions
1918 full articles
Reach: 5,363,680,363
Value: €49,625,468
Interviews given by Fairphone team members: 138
Sent out 10 press releases and hosted two big press events (IFA and MWC)

Another day, another film crew

Over the years the Fairphone team has become interview experts, pausing to share our message with the press at events, fairs, presentations and more. But the in past couple years, we've had to wrap our heads around a new level of coverage: being followed around by film crews! We've now become accustomed to quickly tidying up our desks as soon as a camera appears in the office, but in 2017 some of our team members got a taste of fame when film crews joined them on the road. For example, a French journalist joined us on a trip to Ghana for the latest update on our e-waste projects, while a German crew covered us everywhere from our HQ in the Netherlands to the mines in the DRC for "Zeit für Utopien", a documentary hitting theaters in 2018.

The Guardian's Observer Best Gadgets 2017:

"Fairphone.com is the ethical market leader — it not only uses conflict-free minerals but is a modular product designed to be repairable."

Tech Crunch

*"Meet the tiny phone company that's making modularity sustainable."*

ZDNet

"Fairphone, the Dutch smartphone startup that began life in 2013, has made a habit out of doing the sort of thing that even some of the biggest hardware manufacturers in the world haven't been able to pull off."

Team member Bas being interviewed by Deutsche Welle during IFA 2017

Leading and learning with academia
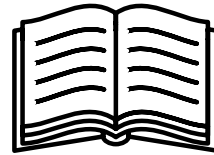
Sharing knowledge to expand our mission

Mentions in research papers & publications:
34 (2017 only), 144 (2012 - end 2017 cumulative)

Fairphone Research Webinars:
10, with 50 research groups

Fairphone aims to set an example for a different way to make a phone, and a better way to do business in general. We believe that sharing knowledge is crucial to furthering our mission and bettering our industry. That's why we're so proud when others cite Fairphone as an example in their work. Since 2012, we have been mentioned in a total of 144 research papers and publications, with 34 of those mentions occuring in 2017.

In fact, we receive so many requests for support related to research publications and theses that we decided to launch a monthly Research Webinar. In 2017, we hosted ten of these info-sharing sessions. Approximately 50 research groups participated throughout the year, ranging from Masters students to industry professionals. Not only is it a chance for people to learn directly from Fairphone; it's a chance for us to learn from them, and — somewhat rare for a research webinar — for the whole group to learn from each other. It's just one more way we're trying to actively live our mission and prove that transparency and knowledge-sharing can form the backbone of this industry's future.

Team member Miquel at a workshop in conversation with interested participants.

G20 Insights report on the Circular Economy: Better Products by Design

"Phones that last longer would be good for people and the planet. British consumers spend £1.1 billion on fixing broken screens, and keeping a phone going for just one extra year can cut its overall carbon footprint by a third. … Easily replaceable screens already exist: … Fairphone 2: screen repair takes less than one minute, and costs £70:"

Elements Magazine on GeoScienceWorld: Responsible sourcing of critical metals:

"Some manufacturers, such as Fairphone have attempted to understand their supply chain and to connect consumers with the raw materials used. For most complex products, though, it is hard for the consumer to make a connection to the mines that have produced the raw materials."

Conference paper for Delft University of Technology's PLATE conference: What's hot, what's not: the social construction of product obsolescence and its relevance for strategies to increase functionality

"The design of the Fairphone offers different stimuli — like the transparency of physical properties, the invitation "yours to open" and the pre-installed app from iFixit — that target the user's practical understanding of the product's functioning or at least his or her curiosity. What does it make with users if they can easily look inside their phones, if they are invited and supported to physically "enter" into their devices? Based on our previous reflections we can hypothesize that the accordances in this scenario to get to know the object and to repair if needed enlarges the scope of practical understandings and creates a new meaning around maxing out the device."

2017 Mentions in Research Papers and Publications

Publication type	Mentioned in
Books	12
Conference papers	4
Master's thesis	2
PhD thesis	1
Reports	5
Research papers	7
Academic articles	3
Total	**34**

Combined efforts create bigger results

A fairer electronics industry cannot be achieved alone. Working alongside partners and motivated parties is the best — and often only — way to advance our mission of systemic change. This is what our KPI for a fairer industry is all about. A quantitative measurement of this is something we're still perfecting, but hearing from experts in our industry about our impact is the type of qualitative feedback that inspires us and pushes us onward; Fairphone is making a difference, and that difference is apparent.

At the launch of the Gold Covenant, with the Dutch Minister of Foreign Affairs and a variety of gold sector stakeholders working to jointly improve every step of the gold supply chain, from mining to recycling.

"In recent years, we've noticed that the improvements at NBM and long-term commitment of shareholders have made miners more loyal and proud to work here. By working with Fairphone, we've gained recognition as a model mine in Rwanda, which helped us convince global buyers to renew their interest in sourcing from this part of the world."

— Quentin Lamarche, Specialty Metals Resources (SMR)

"By becoming the first operator in France to offer the Fairphone 2 as an alternative to customers, we're taking our commitment to sustainability to the next level. To us, this is a way to make a sustainable, ethical and longer-lasting smartphone more mainstream."

— Isabelle Gherardi, Head of Devices Portfolio, Orange France

"Signify is cooperating with Fairphone to create a responsible supply chain for small-scale cobalt mining as Fairphone's commitment brings a lot of added value in terms of knowledge, network and creative thinking on very complicated issues. I'm confident that by joining forces we will positively impact global supply chains and improve conditions in small-scale cobalt mining."

— Carla Neefs, Director Supplier Sustainability & Audits, Signify (formerly Philips Lighting)

"The smartphone market is dominated by a few giants. Their flagship products have one thing in common: they are becoming increasingly fragile with the goal of pushing faster replacement cycles. For Digitec, Fairphone is a refreshing brand that helps us differentiate our portfolio, but more importantly, it offers an environmentally conscious alternative to the aforementioned phenomenon."

— Hendrik Blenken Blijdenstein CCO Digitech

"Using the provided full bill of materials (BoM) and full material declaration (FMD) Fairphone has shown how simulation-based design can help to improve designs, improve resource efficiency and therefore innovate the circular economy. Personally, I have been in true awe of the trust placed in us to use their IP embodied within the BoM and FMD to transparently show what the recycling rate of complex products are. I have the deepest respect for this honesty and their drive to make the circular economy work."

— Prof. Dr. Dr. h.c. mult. Markus Reuter, Director Helmholtz Institute Freiberg for Resource Technology

Our future

The title of this impact report sums it up nicely: We're here, and we're here to stay. But that statement isn't about sitting back and celebrating our accomplishments. Fairphone is built to be around for the long term; we're a movement that will keep growing, thriving and making a greater impact in every part of the electronics supply chain. To achieve that, we can't just stick around and stagnate; we need to expand and evolve — and I'm excited to be part of that evolution.

When I joined Fairphone in the fall of 2017, I was enthusiastic about the company, its values and my role as managing director. Together with Bas and the management team, we worked to develop a clear vision for Fairphone's future and what it will take to get us there. Our plans and goals are always guided by Fairphone's mission: by establishing a viable market for ethical consumer electronics, we're motivating the entire industry to act more responsibly.

So what can you expect from us in the years ahead? The simplest way I can say it is: we'll keep what's working and improve what isn't, with the aim of making everything we do scalable.

For example, we're refining internal systems and processes to create a stronger operational foundation. We're formalizing structures, encouraging better collaboration between departments and throwing around new (to Fairphone) acronyms like OGSM and KPIs. Meanwhile I also want to be careful not to organize away our company's personality. It's important to protect the creativity, entrepreneurship and "let's do it" mentality that got Fairphone where it is today.

On the product side, we'll keep focusing on longer-lasting, repairable phones while working to correct issues that stand in the way of a great customer experience. To increase the

stability of the supply and quality of our phones, we'll continue to improve product engineering and supply chain management throughout the company.

We're striving to make our impact scalable as well. To build on our existing achievements, we want to contribute to initiatives that can be replicated, expanded and taken to the next level — not just by Fairphone, but by anyone in our industry. Our gold partnership in Uganda is a strong example of that. Our primary goal is to make it easy for other parties to join in purchasing this gold to create a more consistent, sustainable market for responsible minerals.

In addition, as our company matures and grows, we'll continue to communicate our successes, as well as our stumbling blocks. However, as we reach new audiences and customers, we want to ensure that everyone can relate to the story behind their phones, no matter how much they know about electronics.

In closing, I'd like to thank you once again for your interest in Fairphone and what we're trying to achieve. I'm grateful to be part of such a motivated, talented team, and am confident that we'll continue to reach exciting new milestones together in the years ahead.

We've shared so much information in this report, but there's still lots more I can't wait to discuss. I'm looking forward to all of our future conversations — on our blog, on social media, on stage and in person.

With warm regards,

Eva Gouwens

> The simplest way I can say it is: we'll keep what's working and improve what isn't, with the aim of making everything we do scalable.

Thank You
We're grateful to each and every one of you

Thank you
to all the people and organizations
who first brought us together and
inspired our way of thinking.

Thank you
to our community for believing in us,
spreading the word about
fair electronics and keeping us on our toes.

Thank you
to the miners, smelters, factory employees,
suppliers, distributors, logistics specialists,
recyclers and every single person who contributes
to making our phones.

Thank you
to all of our project partners
who make it possible to transform our ideas
for fair electronics into reality.

Thank you
to our distribution partners
who bring our product to markets
we'd never be able to reach on our own.

Thank you
to our impact investors who believe
that it's possible to build a successful business
and create positive impact at the same time.

Thank you
to Fairphone 1 and 2 owners
who dared to vote with their wallets,
and stood by our side even when
it required unbelievable patience.

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who reviewed, reviewed, and then reviewed
this report "just one more time".

And finally, thank you
for reading this report. It's people like you,
filled with curiosity and determination,
who make all of this possible.

Colophon

Disclaimer

The Fairphone Impact Report, Volume 1 was first published in November 2018. The content is primarily based on 2017, contextualized with information from previous years where necessary. All information was accurate to the best of our knowledge at the time of publication.

Statement from our consultant Sustainalize

"The purpose of our examination was to advise Fairphone on how to improve its reporting processes and to enable management to safeguard the quality of the data for the Key Performance Indicators (KPIs) presented in the 2017 Impact Report. We performed interviews and document walkthroughs and reconciled the reported data with underlying supporting documentation on a sample basis. Following our examination, together with Fairphone we reached a mutual conclusion on the KPI figures presented in this report.
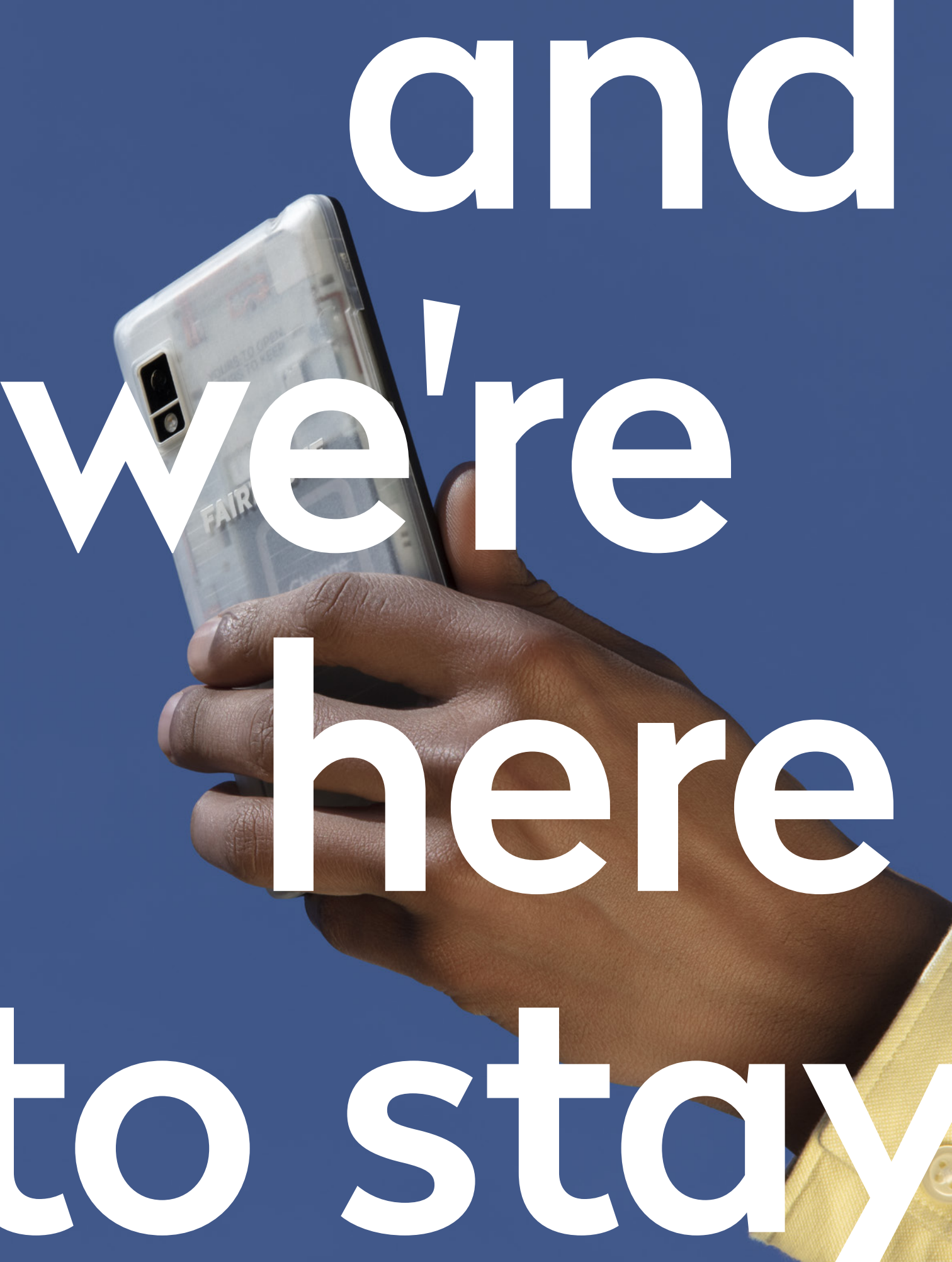
Our recommendations to improve future data reporting process include: 1) To improve consistency in data reporting by setting clear boundaries and definitions per KPI and 2) To formalize and automate reporting processes by limiting the amount of manual data processing, which is prone to errors.

As we are not bound by assurance standards, we do not provide external assurance on the reported data."

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W	H	Y	C	N	E	R	A	P	S	N	A	R	T	C
V	C	K	J	G	O	G	O	R	O	N	H	I	P	F