



stichting  
**OPEN**

**ANNUAL REPORT**

**2023**



# FOREWORD

## CIRCULAR ECONOMY ONE STEP CLOSER

In 2023, OPEN Foundation, together with its partners, took important steps towards a fully circular e-waste sector. 99% of all appliances and lightbulbs collected through us, along with the materials incorporated in them, have found a new and useful application. In 2023, we jointly increased the collection of discarded appliances and lightbulbs significantly: we passed the 200 million kilogram mark of collected e-waste for the first time. We are proud of the results shown and feel encouraged to continue working enthusiastically towards our ambitions for 2024.



Jan Vlak &  
Steven van Eijck

To achieve a sustainable society, our economy must run entirely on reusable raw materials by 2050. OPEN Foundation is a key player and knowledge institute in realising this ambition by making the e-waste sector more circular. As a producer organisation, we see compliance with laws and regulations as a given and are taking the lead on the path towards a circular economy. We aim to minimise the use of virgin raw materials and to keep recovered raw materials in the value chain for as long as possible. We give interpretation to this through projects, studies, partnerships and our knowledge centre. In the coming years, developments towards a circular economy in both the Netherlands and Europe should gain significant momentum. We at OPEN Foundation are ready to use our knowledge and experience of circularity and implementation capacity to work towards the 2050 goals.

Looking back at 2023, a number of issues stand out. We are very satisfied with the results of the Incentive Scheme in the metals sector. These exceeded expectations. Cooperation with the metals recycling industry contributes significantly to the national collection balance for discarded appliances and lightbulbs. In the previous annual report, we announced that we were going to step up our work on this, and we now know that the scheme has generated some 42,000 tonnes of additional appliances and lightbulbs collected in 2023.

We indicated that cooperation in the 65% Alliance needed optimisation. We asked the TwijnstraGudde Organisation Consultancy to examine, together with our partners, how we can future-proof the alliance. Together, we will pick up the conclusion of this review in 2024 with the aim of raising our aims and boosting collection.

**Jan Vlak**

*OPEN Foundation General Director*

The next important development we would like to mention is the merger with the Batteries Foundation. All the preparations for this were made in 2023, and by 1 January 2024 an organisation will be in place to give effect to extended producer responsibility for electrical appliances, lightbulbs and batteries. The social importance of combined collection of these products is high, given the opportunities for resource recovery and reduction of negative impacts on the environment. Collaboration is the only way to achieve a circular economy. Joining forces is therefore an important step forward.

From a policy aspect, we see another development that we wholeheartedly encourage, and that is that more and more stakeholders, including the State Secretary of Infrastructure and Water Management, are becoming convinced of targets aimed at a fully circular economy. Among other things, it became clear during the State Secretary's discussion with our Advisory Board that, even though OPEN Foundation has an obligation to strive to collect as many discarded appliances as possible, work must be done on a new target. This also affects our aims for 2024: we would like to continue working towards a new circular target with the aid of stakeholder dialogues.

2024 marks the 25th anniversary of extended producer responsibility for electrical appliances. We will celebrate this at a conference in October 2024. We will look back and list all that has been achieved, but above all look ahead: what do we want to achieve together in 2050, and what will be needed for this. The outcomes of the stakeholder dialogues mentioned above are an important part of this.

This annual report will tell you more about developments over the past year. We look forward to taking a further step in 2024 to further increase collection and move towards a circular e-waste sector.

**Steven van Eijck**

*OPEN Foundation Chair*





“We are aiming at a circular economy”

# RADICAL FOCUS ON COLLABORATIVE COLLECTION

In 2023, the focus was on expanding the safe nationwide collection of waste appliances and lightbulbs. Including through the new platform [wecyclevoorbedrijven.nl](https://wecyclevoorbedrijven.nl), with the Incentive Scheme for Metals Recyclers and with the Battery Fires Taskforce.

## WECYCLEVOORBEDRIJVEN.NL

Tackling so-called leakage flows by focusing on drop-off points for businesses was a priority. Research shows that more than 40 million kilos of discarded appliances, lightbulbs and batteries disappear into company residual waste. Many businesses cannot take their electrical appliances or large batches of lightbulbs to the municipal waste disposal site. There is a need for more drop-off options, which is why OPEN Foundation has launched [wecyclevoorbedrijven.nl](https://wecyclevoorbedrijven.nl). On this platform, companies search by postcode or place name for a nearby drop-off point for their discarded appliances. There is also OPEN Foundation's free collection service. There are now over 200 drop-off points, and their number is growing. Some 2,000 orders were placed for free collection of electrical waste during 2023. Holland Recycling, specialist in recycling, reuse and data destruction, is one of the new Wecycle drop-off points for businesses.

Esther Musch, accountmanager  
at OPEN Foundation and  
Luuk Bongers, salesmanager  
at Holland Recycling.



Sales manager Luuk Bongers says: 'With Holland Recycling, we are aiming at a circular economy; we see people flourishing in our sector, and we are proud to be a wecyclevoorbedrijven collection point. Wecyclevoorbedrijven.nl is going to grow even more, I'm sure!'

## INCENTIVE SCHEME

For some appliances containing metals, companies can get a materials refund from metals recyclers. Expectations for this incentive scheme were exceeded last year by a large margin. Cooperation with the metals recycling industry contributes significantly to the national collection balance for discarded appliances and lightbulbs. In 2023, the scheme generated some 42,000 tonnes of additional appliances and lightbulbs collected. Of these, 3,000 tonnes concerned separately collected central heating boilers and 2,000 tonnes concerned light fittings, which, thanks to the scheme, were processed in a high-quality, environmentally friendly and safe manner, in accordance with CENELEC standards<sup>2</sup>. The Incentive Scheme has led to metals recyclers becoming part of OPEN Foundation's waste management structure.

We remain committed over the years ahead to broadening the scheme by increasing the number of participants, by contributing financially to the CENELEC certification of metals recyclers, and also by collecting air conditioners, heat pumps, cables and batteries separately through metals recyclers. We are also looking at how to further extend the Incentive Scheme for better collection by installation, dismantling, renovation and demolition companies. In this way, we will ensure that we can recover as many valuable raw materials as possible so as to retain them in the value chain.

## BATTERY FIRES TASKFORCE

The Battery Fires Taskforce was established in 2023. A partnership of six chain parties: BRBS Recycling, NRF, NVRD, Stibat Services, TLN, Vereniging Afvalbedrijven and OPEN Foundation. This taskforce is cooperatively tackling the problem of waste fires caused by batteries. Research shows that (devices containing) batteries in residual waste, such as disposable vapes, increase the risk of fires. That is why we launched the collaborative and hard-hitting campaign 'Separate it'. The taskforce will continue to work on the plan of action in 2024.



## KNOWLEDGE-SHARING FOR CIRCULAR OPPORTUNITIES

Research, pilot projects and knowledge-sharing are key elements in working towards a circular sector. Circulairekennis.nl features independent information on research, experiments and innovations around circularity within the e-waste sector. The number of publications on this platform grew once more in 2023, and we are seeing increasing use of it.

## ALL-ACTORS PRINCIPLE

In the 65% Alliance, OPEN Foundation works constantly with different chain partners: municipalities, retailers, processors, installers and central government. The common challenge towards a circular economy requires all partners in the collaboration to take responsibility: the all-actors principle.

<sup>1</sup> The conditions can be viewed at [wecyclevoorbedrijven.nl](https://wecyclevoorbedrijven.nl).

<sup>2</sup> CENELEC is the European standard for the processing of discarded electrical and electronic equipment.



# PRODUCER RESPONSIBILITY

In 2023, we started to make producer responsibility for appliances and lightbulbs (and from 2024 of batteries) better known. On the one hand, to better connect with our producers and importers and, on the other, to alert so-called free riders to their responsibilities. The motto: together we'll get it done.

“As a manufacturer, we have the opportunity, together with our partners, to contribute to a circular economy.”

Peter de Haan, accountmanager  
OPEN Foundation and Kwafie  
Jansen, Director CoffeeSolutions  
at Jacobs Douwe Egberts.



## PRODUCER RESPONSIBILITY EXPLAINED

The activities we carry out under statutory producer responsibility:

- **Registration:** producers and importers putting appliances, lightbulbs and/or batteries on the Dutch market (from 2024) must register with us.
- **Collection:** OPEN Foundation provides nationwide collection channels for consumers and businesses – from the Wadden Sea to the furthest point of South Limburg.
- **Sorting:** sorting and dismantling (where possible) discarded appliances, lightbulbs and, from 2024, batteries into mono streams.
- **Transportation:** safely transporting all streams and stages.
- **Recycling:** OPEN Foundation ensures recycling by CENELEC-certified processors, so as to keep recovered raw materials in the value chain for as long as possible.
- **Education:** under the banner of Wecycle, we run campaigns for consumers and businesses to encourage collection and raise awareness of Wecycle collection points.
- **Knowledge-sharing:** OPEN Foundation contributes through [circulairekennis.nl](https://www.circulairekennis.nl) to knowledge-sharing on circularity in the sector and on extending the operating life of electrical appliances to reduce the waste stream.
- **Promoting interests:** we join forces and work together on the sector's collection target and circularity.
- **Reporting:** OPEN Foundation reports annually to the national government, the National (W)EEE Register and society on the amount of appliances placed on the market, collection, recycling and other aspects of producer responsibility.

## EASILY ARRANGED THROUGH OPEN FOUNDATION

OPEN Foundation, as a central administrator, proactively gives substance to producer responsibility for appliances, lightbulbs and, from 2024, batteries. OPEN Foundation does this together with collection, transport, sorting, recycling and other chain partners. When collected through our collection points, parts, materials and raw materials are largely retained. This allows us to minimise the use of new raw materials and keep recovered raw materials in the value chain for as long as possible. To finance this producer responsibility, producers and importers pay a waste management fee.

Kwafie Jansen, CoffeeSolutions Director at Jacobs Douwe Egberts, is constantly working with her organisation on opportunities on the path to circular services: 'As a manufacturer, we have the opportunity, together with our partners, to contribute to a circular economy. We have the scale and expertise to make a positive impact on the environment and the communities in which we operate, and we feel that it's our responsibility to do the same!'

## SOLAR PANELS FINANCING

In collaboration with the Zonne-energie Foundation, Recycling Nederland (ZRN) and the Holland Solar industry association, the waste management fee for processing solar panels will appear separately on the invoice from 1 July 2023. This is an important step for a level playing field in the solar panel industry. This is necessary because there are still producers and importers who try to evade their producer responsibility (knowingly or unknowingly). This transparency means that the contribution cannot be left unseen, and consumers can see what proportion of the cost is used for recycling.

In addition in 2023, the collection network for discarded solar panels was further expanded, and several research projects were launched in the Netherlands and Europe to process discarded panels in a safe, responsible and separated manner.



# OPEN FOUNDATION ON AN (INTER)NATIONAL PLAYING FIELD

We have worked hard during 2023 to make the sector circular. OPEN Foundation calls for a new collection target, as the current one no longer suffices. A new target should aim to help minimise the use of virgin raw materials while keeping recovered raw materials in the value chain for as long as possible. OPEN Foundation is therefore pushing for appropriate laws and regulations both nationally and internationally.



## COLLECTION TARGET OF 65% OUTDATED

The current statutory collection target of 65% is based on European legislation from 2012. The current target is to collect at least 65 per cent of the average quantity by weight of electrical and electronic appliances placed on the market in the last three years. With the transition to a sustainable economy, economic growth and associated electrification of society, there has been a surge in the sale of these devices on the market. For example, solar panels, electric bikes and home working facilities. These devices are lasting longer, and so – fortunately – they do not come back for recycling after only three years. This is good for the transition to a sustainable and circular society but is at odds with achieving the collection target. OPEN Foundation is committed to keeping recovered raw materials in the value chain for as long as possible. Many parts can be reused before they are available for recycling, so they do not fall under the target.

## NATIONAL CIRCULAR ECONOMY PROGRAMME

The State Secretary of Infrastructure and Water Management supports our plans for the current collection target. This emerged during the discussion between the State Secretary and our Advisory Board and is reflected in the National Circular Economy Programme<sup>3</sup>. Together with the ministry, we aim to work on new targets to achieve a circular sector together. We will do this together with the chain partners involved.

## DROP-OFF OBLIGATION

Since OPEN Foundation was founded, we have been backing an obligation to drop off, as this is needed to plug so-called leakage flows. Discarded electrical appliances still too often end up in ordinary household residual waste, and metals and steel disappear into the waste market as 'trade' through a variety of channels. These devices are not counted in our collection balance.

Lennert Vermaat, secretary of the National Recycling Forum, the platform for recycling organisations, and director of the Metals Recycling Federation (MRF), says: 'Since 2021, OPEN Foundation and the Metals Recycling Federation, MRF, have been seriously considering a professional scheme to encourage the proper disposal of discarded electrical appliances. This Incentive Scheme has not only exceeded the targets but also shows how a financial scheme combined with measures for the future, such as the drop-off obligation, contribute to achieving a circular Netherlands.'



With the obligation to drop off, disposers<sup>4</sup> are obliged to deliver their electrical waste to CENELEC-certified processing facilities to ensure that discarded appliances and lightbulbs are processed in a safe and responsible manner. The introduction of the obligation to drop off was included in the Environment Act. With the introduction of the Environment Act on 1 January 2024, the obligation to drop off should under normal circumstances have come into force. But this is not yet the case, partly because of an additional test on possible additional administrative burdens on business. Last year, the State Secretary informed the House of Representatives in a letter that this drop-off obligation was not yet in place, so OPEN Foundation could not meet the collection commitment in that year.

## EXTENDED PRODUCER RESPONSIBILITY (UPV)

It was decided last year that the Secretary of State, partly at the insistence of the House of Representatives, would take a closer look at extended producer responsibility. The outcome of this is undoubtedly going to affect OPEN Foundation. Among other things, the scope and governance of the UPV instrument will be examined. This may affect the new Generally Binding Declaration (AVV), which takes effect in 2026.

## EUROPE

We lobbied actively in Europe in 2023. We provided input for the review of the WEEE directive that is ongoing in the years ahead: the European e-waste legislation where targets need to change to enable a circular sector. We did so in consultation with the WEEE Forum, a Brussels-based association to which 52 global producer responsibility organisations belong and which OPEN Foundation director Jan Vlak chairs. In the run-up to the European elections, we will put the collection target(s) back on the agenda.

<sup>3</sup> The National Circular Economy Programme (NPCE) is the policy vision through which the Netherlands aims to achieve a fully circular economy by 2050.

<sup>4</sup> Disposers are individuals or companies who decide that something is electrical waste.

René Eijsbouts, strategy advisor OPEN Foundation and Lennert Vermaat, secretary of the National Recycling Forum and director of the MRF.






# PROCESS DEVELOPMENTS FOR A **SECOND LIFE**

Nationwide collection is necessary for recycling, repairing or donating discarded appliances and lightbulbs. Collection is followed by sorting, to generate separate streams for products, components and raw materials with a certain (material) value. Products that pose a safety risk, including streams thought to contain batteries, are processed separately. Significant developments took place in these processes over the course of 2023.

## **SORTING CENTRES IN 2023**

Once electrical appliances and lightbulbs are collected, a large proportion of them go directly to a regional sorting centre (RSC). One such centre in the Nijmegen region has been expanded and enlarged. An RSC has ceased operations in Vlaardingen, and a new location in the south of the country is being worked on. In addition, efforts have been made on new collection bins (IBC containers) and safety at sorting and collection sites. There is a clearer separation between people and moving equipment. In addition, full use was made of automation (conveyor belts) in several locations, and new racks for flat panels were introduced, allowing us to collect flat screens more safely. In addition, we have invested, together with metals processor HKS, in a special sorting line that allows even more careful processing of streams believed to contain batteries.



Coen Teeuw, network coordinator OPEN Foundation and Martien Verwer, business manager at RSC Schiphol.



“Great to get into such an innovative process.”

### RETAINING RAW MATERIALS AND MATERIALS IN THE CHAIN

In 2023, 78.83% of collected waste appliances was prepared for reuse and recycled. Metals such as iron, copper and aluminium are easy to recycle. We see more and more producers, recyclers and processors working together to use materials and raw materials in new products in a high-quality way. 99% of all electric material collected eventually finds a new place on R-ladder. The higher the raw materials can be used on the R-ladder, the lower the resource consumption. This is what OPEN Foundation wants to focus on more in the new target.

### WORLD FIRST IN THE PLASTICS INDUSTRY

At the Plastics Recycling Show Europe in Amsterdam, our chain partners Coolrec (part of Renewi) and household appliance producer Elektrolux won first prize. The collaboration between Coolrec and Electrolux is a world first in the plastics industry. They introduced a fridge produced with an interior made of 70% recycled plastics from discarded fridges, collected in cooperation with OPEN Foundation and its Belgian and French sister organisations.

### APP FOR LCD SCREENS

The basis was created in 2023 for an innovative app that allows sorting centres to keep electrical products separate. A pilot with LCD screens was launched. These screens, unlike LED screens, contain mercury, a hazardous substance that must be handled in a controlled environment. Sorting centres must therefore keep these screens separate. An app has been developed that can recognise the label, brand and symbols on a screen and identify the type number of that screen. It is supported by a database showing which type numbers are LCDs, so that sorting is done properly and carefully. In the future, we want to use this technique on several products, in this way targeting the reuse of raw materials, parts or complete devices. It also makes it easier to isolate hazardous raw materials so that they are processed safely and responsibly.

Martien Verwer, business manager of RSC Meerlanden Schiphol, explains: ‘Great to get into such an innovative process. If the database behind the app is completely correct, you can’t really make any mistakes while sorting. You can add new – as yet unknown products that are not in the database – so the app keeps learning. I’m getting very excited about this, and so are the people who work with it!’

### SUCCESSFUL PILOT PROJECT WITH MIELE

In 2023, Miele, in collaboration with OPEN Foundation, waste collector Meerlanden and waste processor Midwaste, took steps towards a circular business model. Together, we launched a pilot project focusing on refurbished appliances and reusing parts and materials. In addition, consumers will have the opportunity to purchase a refurbished Miele appliance at a lower price.

RSC Schiphol business manager Martien Verwer: ‘The collaboration with Miele is a great step towards a circular industry. We remove motors, circuit boards and other parts from Miele machines that can still have a second life. This is the future!’

They are also banking on the refurbishment of white goods at Holland Circular. Sales manager Luuk Bongers explains: ‘Currently, we refurbish about a thousand washing machines and dryers a month. Employees with reduced labour market prospects carry out this work, and all equipment is checked extensively. Demand for refurbished washing machines, dryers and other white goods is high: there is even a waiting period at many thrift shops.’

### POOLING INTERESTS

OPEN Foundation is there for manufacturers and importers of appliances, lightbulbs and, from 2024, batteries. Their interests are represented through the organisations below. Are you an importer or manufacturer in a specific sector? If so, be sure to join one (or more) of our chain partners: ANStEC / FIAR / NLDigital / Stichting LightRec / Stichting Batterijen / SBFN / SVEG / SMR / ZRN.

# INFORMATION AND CAMPAIGNS

The campaigns that showcase the activities of OPEN Foundation and Wecycle continue to do their job well: The Netherlands wants circular consumption and appreciates the many Wecycle drop-off points and initiatives of our collection partners.

## WECYCLE.NL, FOR CONSUMERS

For years, we have been building the Wecycle brand, telling a comprehensive recycling story. The energy, investment and choices for the many campaigns are paying off. Wecycle gets a 7.8 from the Netherlands, the drop-off bins in shops a 7.7 and the municipal waste recycling centres a 7.9.

Wecycle takes a targeted approach. Among other aspects, at various consumer trade fairs. At the Winter Fair and the 50Plus Fair, we came into contact with various target groups to draw attention to circular house clearances after death or at a new stage of life. Research has shown that house clearances in particular generate a lot of electrical waste. The recycling videos show what happens when you hand in your discarded appliances, lightbulbs and batteries. Watch our videos on [wecyclevideo.nl](https://wecyclevideo.nl).

## WECYCLEVOORBEDRIJVEN.NL

At the beginning of 2023, we launched [wecyclevoorbedrijven.nl](https://wecyclevoorbedrijven.nl), a platform with a collection network behind it to facilitate and motivate companies to dispose their electrical waste properly. The brand awareness was after the first campaigns already at 44%. [Wecyclevoorbedrijven.nl](https://wecyclevoorbedrijven.nl) clearly shows a great need among companies.

## OLD-FOR-NEW

In 2023, we devoted additional attention to the statutory old-for-new scheme with a campaign. A large number of consumers take advantage of being able to dispose of their old appliances or lightbulbs for free directly at the (web) shop when purchasing a new, similar product. This was already known for large appliances such as refrigerators and televisions.

Jelle Kempe, sales employee at EP:Windhorst Techniek: 'For many consumers this old-for-new scheme is new. We have a Wecycle drop-off cabinet in the shop and are happy to help customers return discarded appliances and lightbulbs.'

## REACHING YOUNG PEOPLE

The younger generation has a keen interest in sustainability. With a special youth campaign in cooperation with well-known podcasts and via social media, Wecycling and the importance of making good choices for your old appliances were discussed during so-called 'Hot Takes', discussions in podcasts. The older primary school groups receive the Wecycle School Newspaper every year. For the youngest children, there was something new this year: a Wecycle challenge by Maya the Bee. This way, they too are introduced at an early age to sustainability and Wecycle.

Jelle Kempe, sales employee at EP:Windhorst Techniek and Jacqueline Reinders, marketing advisor OPEN Foundation.

**ADDITIONAL LINK FOR  
FURTHER INFORMATION  
ON THE RESULTS IN 2023.**





# INFOGRAPHICS

On the next pages you will find our factsheets with the facts and figures of 2023.

# Devices and lightbulbs

This fact sheet contains the key facts and figures for 2023. Also read the stories behind these figures in our annual report! To do so, scan the QR code.



## 1. On the market

Number of importers/producers affiliated with us **4,394**

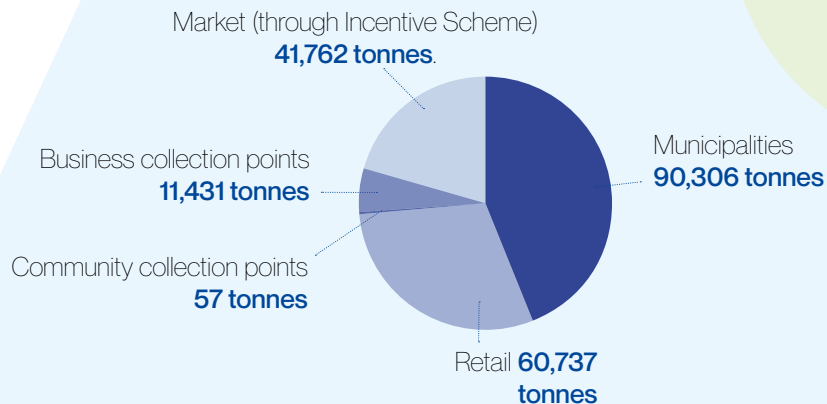
Weight to devices brought to market by them (Put-on-Market, PoM): **823,020 tonnes**

A Dutch household contains on average **131 electronic devices**

## 2. Collection

In total, we collected **204,294 tonnes**

### Where did we collect these tonnes?



**85%** of the Dutch people make use of the municipal waste disposal site

People rate the drop-off point in shops with a **7.7**

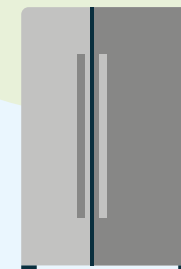
Consumers could come to one of the **7,969 Wecycle drop-off points**

Companies could make use of one of the **206 Wecycle for companies drop-off points**

**1,850 orders** to have electronic waste collected free of charge

### Most collected devices

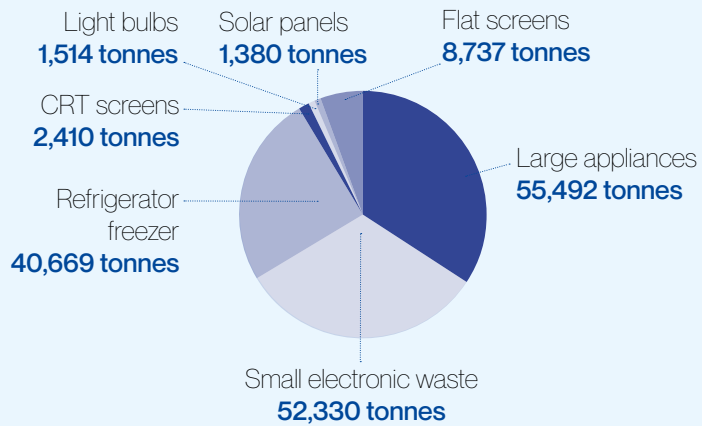
1. Domestic cooling and freezing appliances
2. Washing machines
3. Dishwashers
4. Small audio and video equipment
5. Small household, kitchen and care appliances





### 3. Recycling

\*excluding market (via Incentive Scheme)



**CO<sub>2</sub> emissions avoided**  
550,000 tonnes

#### Useful application

99% of all appliances collected through us and the materials incorporated in them find a useful application through reuse, recycling and energy recovery.



### 4. Information

Average registered reach Wecycle campaigns per resident **41**

(Prompted) awareness of Wecycle **69%**

Rating Wecycle **7.8**

Schools that are partners in our education initiatives **1,500**

Visit the site [wecyclevoorbedrijven.nl](http://wecyclevoorbedrijven.nl) after campaign **54%**

Campaign rating [wecyclevoorbedrijven.nl](http://wecyclevoorbedrijven.nl) **7.3**

Number of newsletters to our importers / manufacturers **8**

Total number of users Circular knowledge: **3,261**

#### Recycling rate by category vs legal target

Heat and cold exchange equipment  
Recycle rate: **82%** | requirement 80%

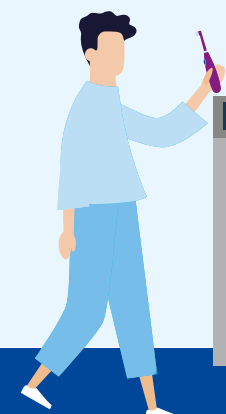
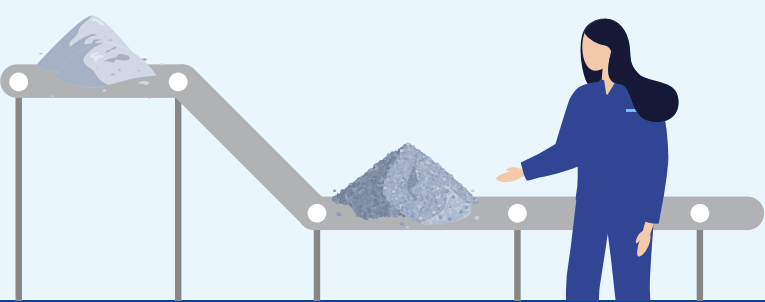
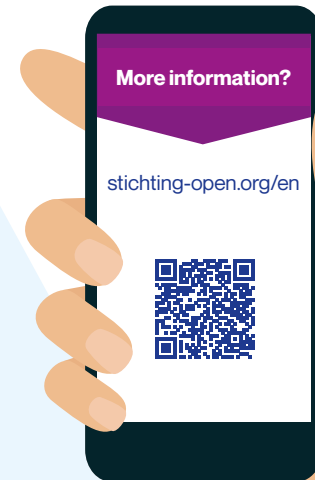
Large appliances  
Recycling rate: **82%** | requirement 80%

Screens and monitors  
Recycling rate: **74%** | requirement 70%

Small appliances  
Recycling rate: **68%** | requirement 55%

Light bulbs  
Recycling rate: **91%** | requirement 80%

Small ICT  
Recycling rate: **75%** | requirement 55%



# Batteries

This fact sheet contains the key facts and figures for 2023. Also read the stories behind these figures in our annual report! To do so, scan the QR code.



## 1. On the market

Manufacturers and importers affiliated with Stichting Batterijen **1,756**

Batteries placed on the market (Put-on-Market, PoM) **10,851 tonnes**

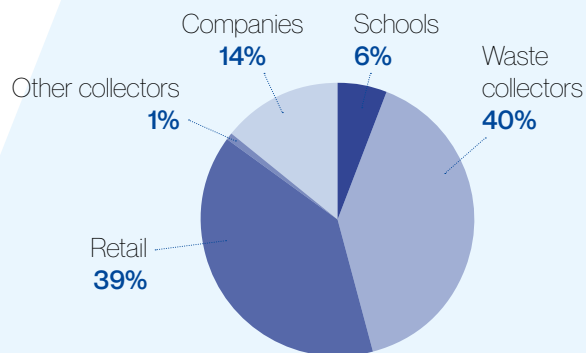


## 2. Collection

Collection result **5,200 tonnes**

Collection rate achieved **46.1%**

### Collection result portable batteries by collection channel

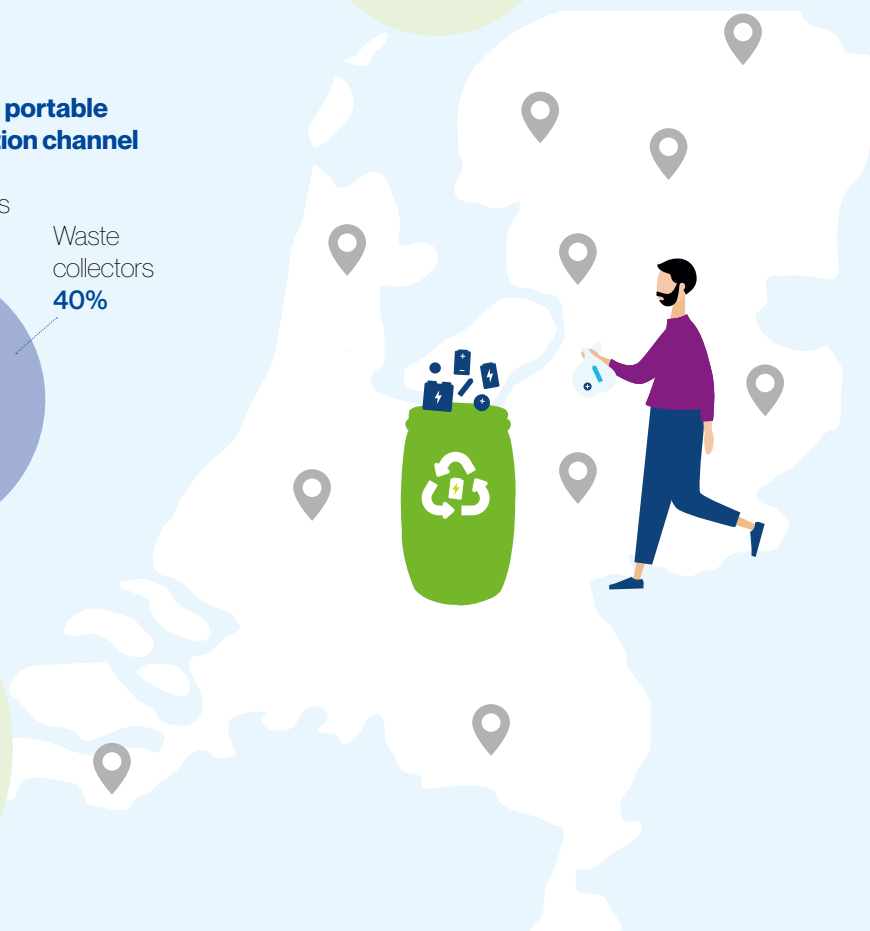


More than **four thousand** primary schools as drop-off point

Collection results for primary schools **266 tonnes, 181 tonnes** of which by the Batterijen Battle. An increase of **51%** as compared to 2022

**28,628**

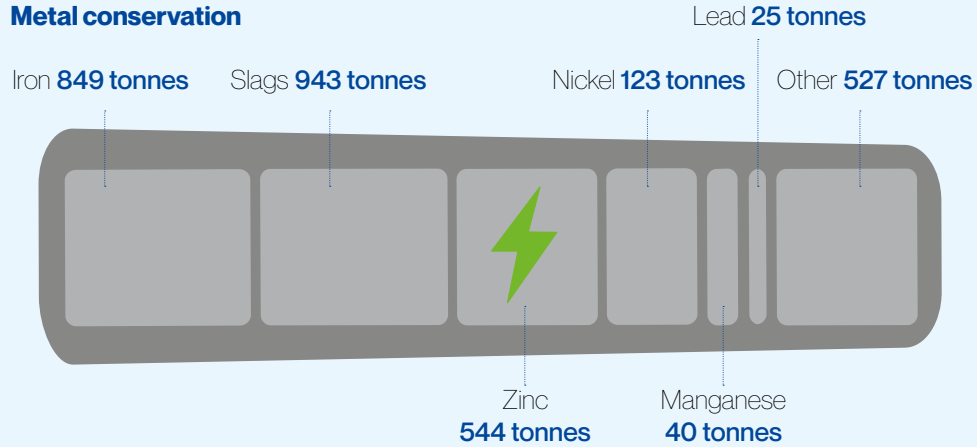
Sibat drop-off points for portable batteries





### 3. Recycling

#### Metal conservation



#### Recycling results

Lead recycling rate achieved **78%**  
Lead target **65%**

Nickel-cadmium recycling rate achieved **75%**  
Nickel-cadmium target **75%**

Recycling rate realised other **81%**  
Target other **50%**



### 4. Information

Reach radio spots public campaign:  
nearly **9 million** people

Consumer reach through social media:  
**4.5 million** people

Website traffic to stibat.nl and legebatterijen.nl:  
**542,000** views

Blog readers:  
**160,000**

Battery storage boxes  
(Batterij Bewaarboxen) distributed:  
**37,000**

#### Ecotest

Prevented emissions  
of toxic substances  
**277,000 tonnes**

Prevented CO<sub>2</sub> emissions  
**3,592 tonnes**



# Bicycle batteries

This fact sheet contains the key facts and figures for 2023. Also read the stories behind these figures in our annual report! To do so, scan the QR code.



## 1. On the market


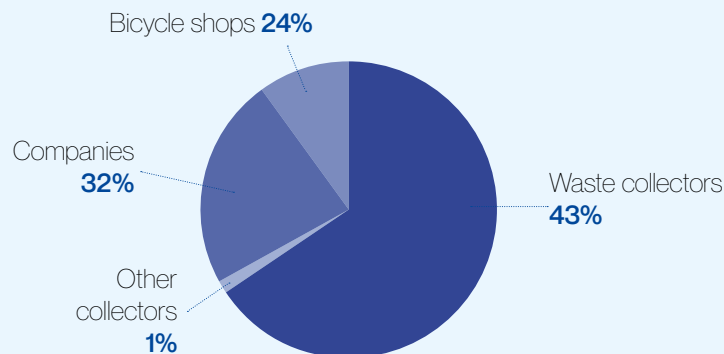
Manufacturers and importers affiliated with Stichting EPAC **159**

Bicycle batteries placed on the market (Put-on-Market, PoM) **1,955 tonnes**

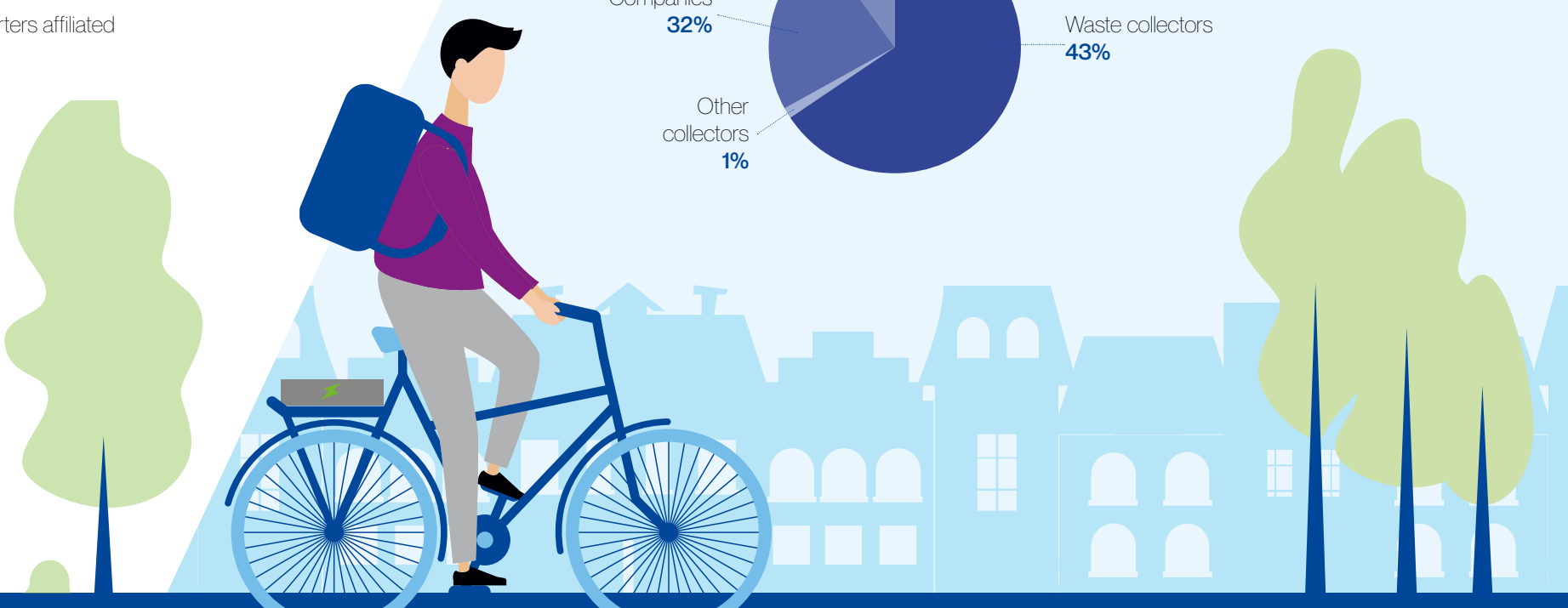
## 2. Collection

Collection result: **334 tonnes**

Collection result bicycle batteries per collection channel



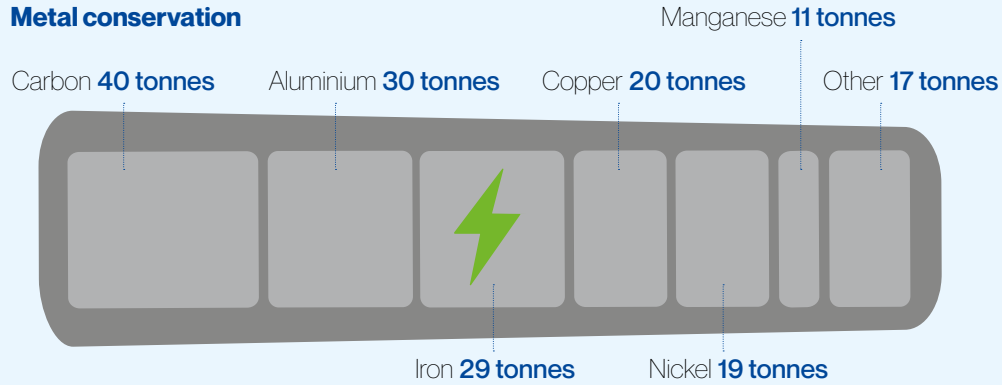
In 2023, there were **1,867** Stibat drop-off points for used bicycle batteries





### 3. Recycling

#### Metal conservation



#### Recycling results

Nickel-cadmium recycling rate achieved **75%**

Nickel-cadmium target **75%**

Recycling rate realised other **66%**

Target other **50%**



#### Ecotest

Prevented emissions of toxic substances

**59,000 tonnes**

Prevented CO<sub>2</sub> emissions

**824 tonnes**

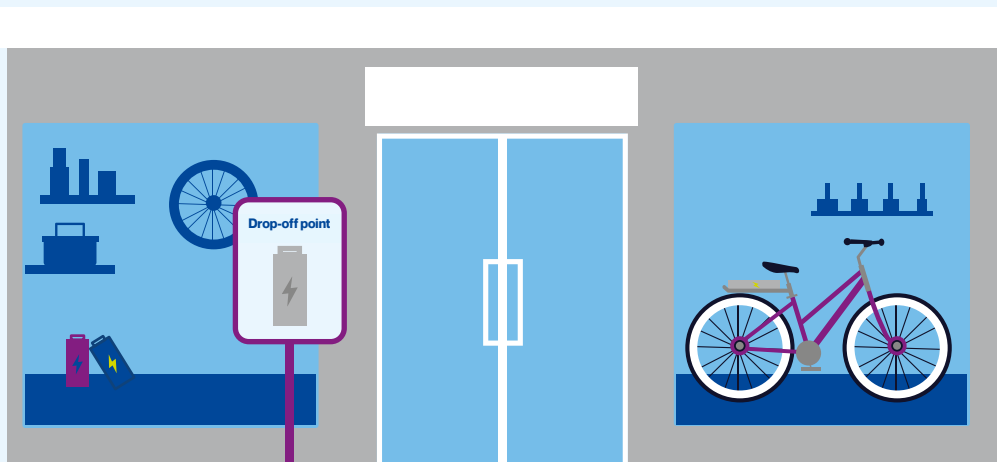
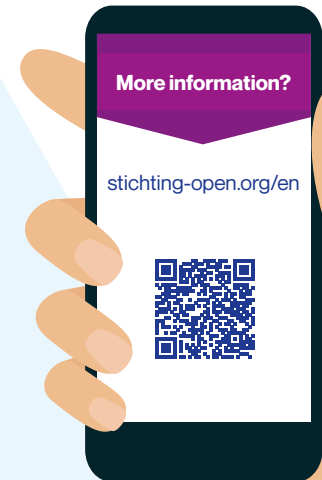
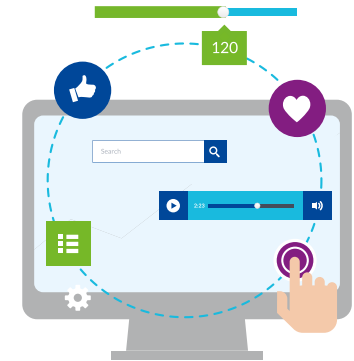


### 4. Information

100 per cent focus on (sponsored) social media, reach: over **4 million** people

Website traffic to stibat.nl and legebatterijen.nl  
**542,000** views

Blog readers  
**160,000**



stichting  
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