



GRS Batterien  
Service GmbH

[www.grs-batterien.de](http://www.grs-batterien.de)

# Annual Review 2025

## GRS eMobility

In Accordance with Section 15(1) and (3)  
of the German Battery Act (BattG)





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## Preliminary remarks



Dear Customers, Partners and Stakeholders,

With this report, we are closing a significant chapter in the take-back of industrial batteries. This report documents the take-back of portable batteries and, for the last time, the take-back volumes of industrial batteries used in small electric vehicles, before these are reclassified as light means of transport batteries (LMT batteries) in next year's report in accordance with the current EU Battery Regulation.

In 2025, more than 16,000 tonnes of batteries were placed on the market by users of our portable battery take-back systems – growth of over 15% compared to the previous year. The current collection rate stands at approximately 55%, representing an important step towards achieving the statutory target of 63% by 2027. The continuous adaptation and optimisation of our take-back structures ensures that we meet the requirements of the new EU Battery Regulation and offer future-proof solutions.

The e-bike market continues to develop dynamically: according to current figures, approximately 2 million e-bikes were sold in Germany in 2025 (source: German Bicycle Industry Association, April 2026). This trend underlines the importance of a comprehensive and efficient take-back system for waste batteries, which we are successfully delivering together with our partners.

The transition to the new classification marks an important milestone for our take-back system. We would like to express our sincere thanks for your trust and support over the past years, and we look forward to the challenges and opportunities ahead as we continue to develop our system in the spirit of sustainable circular economy.

Sincerely

**Dr Julia Hobohm (Cert. eng.)**

General Manager

Gemeinsames Rücknahmesystem Servicegesellschaft mbH  
Hamburg, May 2026

## Endorsement of the annual review 2025 for portable batteries

### Gemeinsames Rücknahmesystem Servicegesellschaft mbH

Gotenstr. 14, 20097 Hamburg, Germany

determined the quantities placed on and collected from the market, for the take-back scheme for producers of portable batteries (GRS Consumer, GRS eMobility, GRS Healthcare and GRS Powertools) for the reporting year 2025 and presented these figures to cyclos GmbH for auditing.

The annual review 2025 (version dated 15/04/2026) was audited using documentation and other random samples provided in compliance with Section 15(1) of the German Battery Act (25/06/2009, in its latest amendment dated 03/11/2020, valid for 2023).

On the basis of the audit result, this version of the annual review 2025 is hereby endorsed (see tables in annexes 1-4).

Osnabrück, 15/04/2026



Ute Schmiedel

Publicly appointed and sworn expert by the Chamber of Industry and Commerce for packaging disposal, electrical appliance disposal  
Authorised by: Chamber of Industry and Commerce Osnabrück – Emsland – County of Bentheim

**cyclos GmbH**  
Westerbreite 7, 49084 Osnabrück

### Der Gemeinsames Rücknahmesystem Servicegesellschaft mbH

Gotenstraße 14 , 20097 Hamburg

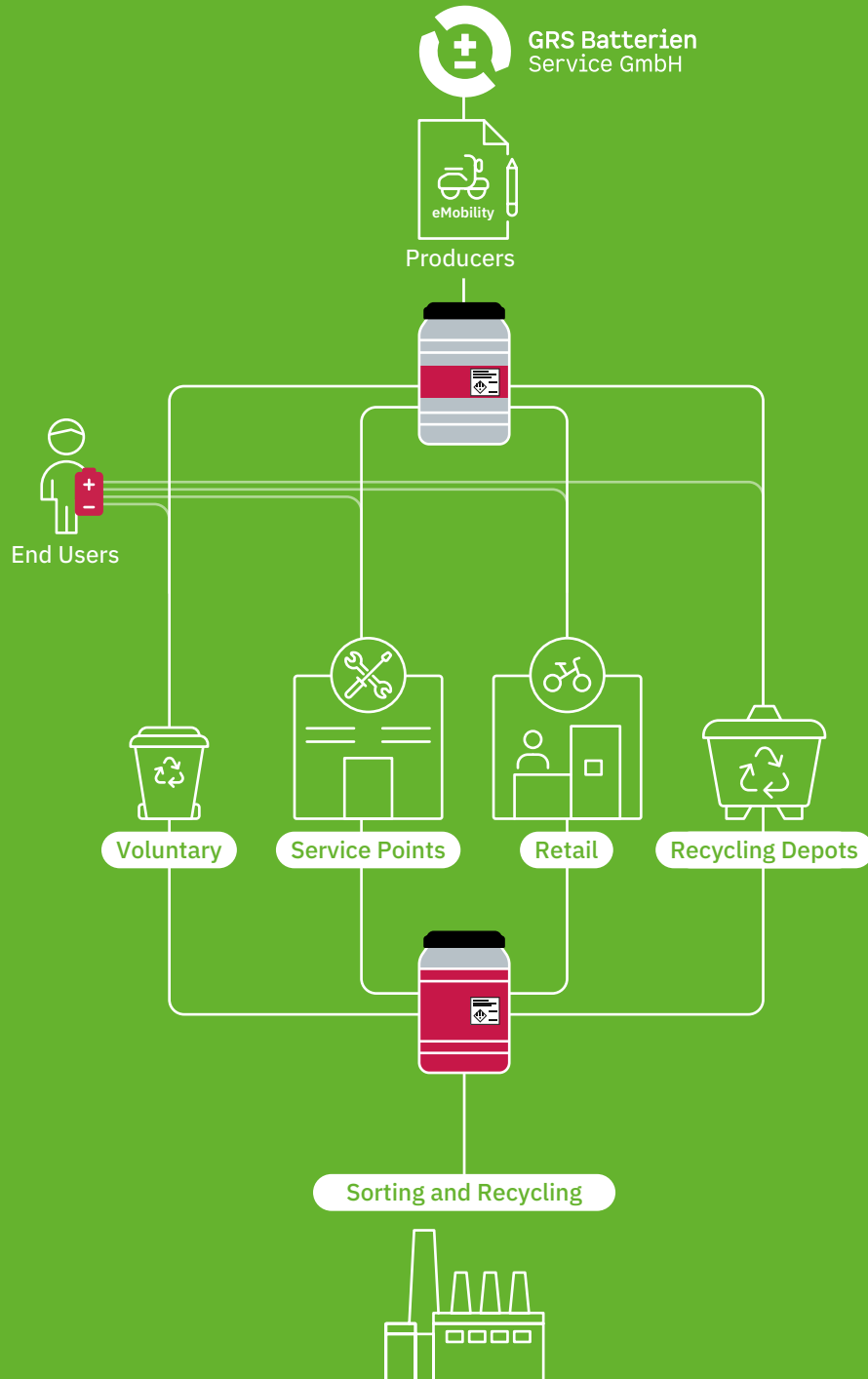
Based on the audit of the Annual Review 2025 for the take-back scheme GRS eMobility, the following results are endorsed\*:

Battery Act	Requirements	Result
Section 15(1), no. 1	Mass of portable batteries placed on the market by members/manufacturers in 2025	1184.6 tonnes
	Mass of portable batteries taken back by us	2232.3 tonnes
	Mass of portable batteries purchased from other take-back schemes	–
Section 15(1), no. 2	Mass of portable batteries sold to other take-back schemes	1773.7 tonnes
	Total mass of portable batteries taken back	458.6 tonnes
	Section 15(1), no. 3	Mass of recycled waste portable batteries
Section 15(1), no. 4	Collection rate achieved**	54.1%
Section 15(1), no. 5	Recycling rate achieved	95.6%
Section 15 (1), no. 6	Qualitative and quantitative results for recycling and disposal in 2025	traceable

\* For details, please see the methodology report and documentation regarding annual reporting for portable batteries 2025 pursuant to Section 15 BattG (German Battery Act) from GRS Batterien Service GmbH (signed on 28/04/2026).

\*\* The collection rate was calculated pursuant to Section 16(2) BattG

The above information is based on Tables 1 and 2 published by the German Environment Agency.



## GRS eMobility, the industry-specific solution

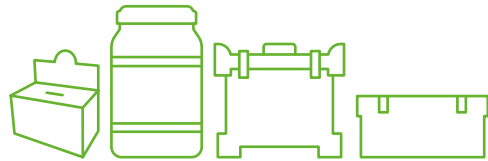
Producers of portable and industrial batteries for small electric vehicles commission GRS Servicegesellschaft mbH (GRS Service GmbH) to offer independent bicycle retailers and producer-owned service centres a collection service for used batteries from electric bicycles, for example.

Voluntary collection centres, municipal waste collectors and treatment facilities for waste electrical equipment and end-of-life vehicles can also take advantage of the scheme as a 'GRS eMobility collection point'. They will receive equipment to get set up, as well as informative literature on the safe collection of waste batteries.

Consumers can conveniently return their used batteries, free of charge, to any of these collection points. Once commissioned by the collection points, GRS Batterien arranges for the collection of the filled collection containers, and manages the sorting and proper recycling of the spent batteries.



# GRS eMobility in numbers



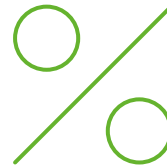
Amount collected

458.6 t

Portable batteries

227,9 t

Industrial batteries



Collection rate

54.1%

Portable batteries



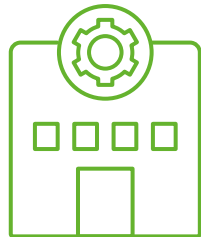
Recycling rate

95.6%

Portable batteries

92.4%

Industrial batteries



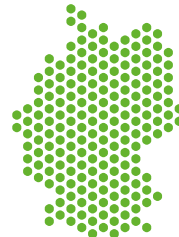
Producers

91

Portable batteries

212

Industrial batteries



Collection points\*

771

Portable batteries

1417

Industrial batteries

\*Collection points where at least one portable and/or industrial battery was returned in 2025



## Producers

The GRS eMobility industry-specific solution has more than 200 customers among producers and importers of industrial and/or portable batteries for small electric vehicles, such as those used in E-bikes, E-scooters, Segways, electric motorbikes and more. GRS Service GmbH undertakes all the duties for these clients to ensure compliance with the Battery Act. This includes:

**Section 4: Duty to Register** Registration with the relevant authorities.

**Sections 5 and 8: Producers' Take-back Duties** Offering take-back to distributors, public waste disposal entities, voluntary collection centres and treatment facilities.

**Section 14: Recycling and Disposal** Ensuring treatment and recycling of batteries in accordance with law, achieving or even exceeding targets for recycling efficiency.

**Section 15: Annual Review** Annual review to document the mass of batteries taken back and recycled by GRS eMobility users, the collection and recycling rates, and qualitative and quantitative results from recycling and disposal.

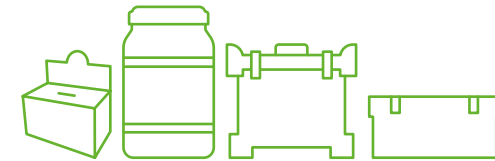
**Section 18: Duty to Notify** Providing distributors with information and ways to communicate up-to-date information to end users.



## Take-back Network

Since the inauguration of our industry-specific solution, more than 2700 distributors of E-bikes and other small electric vehicles have received our start-up package, composed of collection containers, informative literature and packaging materials. The specifically labelled collection container is designed for the collection of large used lithium batteries from electric bicycles and other small electric vehicles.

We take the safety of everyone involved in transporting waste batteries very seriously. With this in mind, and to respond to the strong demand from our collection centres for qualified training on the subject of 'proper take-back of lithium batteries', we offer our GRS training in accordance with 1.3 ADR for all persons involved in transporting dangerous goods..



## Collection Results

The continuing boom in the E-bike market has received a further boost. According to data from the German Bicycle Industry (ZIV), more than 2 million E-bikes were sold in Germany in 2025, meaning that once again more E-bikes were sold in a single year than conventional pedal-powered bikes.

Due to the long life of rechargeable batteries, the volume of taken-back spent batteries from small electric vehicles is increasing with a significant time delay. In the medium term, we are therefore expecting a significant increase in the volume of returns and are already well positioned for this. The recycling rate for portable batteries was 95.6%, while the rate for returned industrial batteries was 92.4%.



# Communications

One of the essential parts of our job as a take-back scheme is to educate and inform consumers about how to return batteries, especially lithium batteries, in compliance with regulations and separately from household waste. This is why 2024 saw all the take-back schemes operating on the market come together to launch the consumer campaign, [www.batterie-zurueck.de](http://www.batterie-zurueck.de) in accordance with their obligations under Section 18 of the Battery Act (BattG). The aim of the campaign is to increase the return rate of waste batteries and rechargeable batteries.

In addition, our goal is to become industry leaders in terms of expertise, transforming and continuously optimizing the entire circular economy approach in practice and through dialogue with colleagues. GRS Service GmbH is actively engaged in communications and shares its expertise with the industry through lectures, interviews and thought leadership appearances.

**Einfach und sicher sam**  
Vertreiber von Batterien sind zur kostenfreien Rücknahme von Batterien verpflichtet. Kommunen bzw. öffentlich-rechtliche Entsorgungsträger und Behandlungsbetriebe sind zur Rücknahme von Batterien verpflichtet.  
Altgeräte sowie Altfahrzeuge sind in die Rücknahme von Batterien einbezogen.  
Jetzt Rücknahmestelle werden!

**Unentgeltliche Abholung**  
Das Batteriegesetz (BattDG) verpflichtet bestimmte Stellen, zurückgenommene Batterien korrekt weiterzugeben.  
○ Händler  
○ Betreiber von Behandlungseinrichtungen für Altgeräte und Altfahrzeuge  
○ öffentlich-rechtliche Entsorgungsträger  
○ freiwillige Sammelstellen  
Diese Stellen müssen die von ihnen erfassten **Geräte-Alt-Batterien** und **LV-Alt-Batterien** nach den Vorschriften der **Batteriegesetz (BattDG)** an die **zugelassene Organisation für Herstellerverantwortung (OH)** überlassen.  
Alle OH sind verpflichtet, allen gesetzlich verpflichteten und freiwilligen Rücknahme- und Sammelstellen für Geräte-Alt-Batterien und LV-Alt-Batterien anzubieten.

**BATTERIE RÜCKNAHME**  
Wie entsorge ich Batterien richtig? ]

**BATTERY RETURN - HOW**  
Empty batteries and rechargeable batteries must not be disposed of in household waste. This is demonstrated by the printed symbol of a crossed-out dustbin. Batteries must also be removed from electrical appliances before the used appliances are sent to the recycling centre.

But where can used batteries and accumulators be handed in? Everywhere where new ones are also sold. In other words: You can find **collection boxes with the battery takeback logo** in the supermarket around the corner, in drugstores, department stores, DIY shops or even in electrical shops. The boxes are integrated into stations, usually near the entrance and exit, where other waste can also be dropped off.



GRS Batterien  
Service GmbH

Annual Review 2025 GRS eMobility

# Annex





## Mass of batteries placed on the market

Category/Scheme		Tonnes	Percent
<b>Primary batteries</b>			
Round cells	AlMn	814.4	68.75
	Li	9.4	0.79
	Zn-air	21.3	1.80
	ZnC	52.5	4.44
Button cells	AgO	0.1	0.01
	AlMn	2.7	0.23
	Li	10.4	0.88
	Zn-air	2.3	0.19
<b>Subtotal I</b>		<b>913.1</b>	<b>77.09</b>
<b>Secondary batteries</b>			
Round cells	AlMn		
	Li-ion	211.2	17.83
	NiCd	19.2	1.62
	NiMH	37.9	3.20
Button cells	Pb	3.1	0.26
	Li-ion	< 0.1	< 0.1
	NiCd		
	NiMH	0.1	< 0.1
<b>Subtotal II</b>		<b>271.4</b>	<b>22.91</b>
<b>Total</b>		<b>1184.6</b>	<b>100.00</b>

BattG Act governing placement on the market, take-back and environmentally-compatible disposal of conventional and rechargeable batteries

Primary batteries non-rechargeable batteries Secondary batteries rechargeable batteries AgO Silver oxide AlMn Alkaline-manganese Cd Cadmium Li Lithium Li-ion Lithium-ion NiCd Nickel-cadmium NiMH Nickel-metal hydride NiZn Nickel-zinc Pb Lead Zn-air Zinc-air ZnC Zinc-carbon



## Mass of batteries taken back, by category and scheme

Category/Scheme		Mass taken back by our scheme	Mass purchased from other take-back schemes	Mass sold to other take-back schemes	Result (Basis for calculating the collection rate)
<b>Primary batteries</b>		<b>Tonnen<sup>1</sup></b>			
Round cells	ZnC	54.2		42.9	11.4
	AlMn/NiZn	1767.1		1397.2	369.9
	Zn-air				
	Li	34.4		27.2	7.2
Button cells <sup>2</sup>	AgO	28.6		22.6	6.0
	AlMn				
	Zn-air				
	Li				
<b>Subtotal I</b>		<b>1884.4</b>		<b>1489.9</b>	<b>394.5</b>
<b>Secondary batteries</b>					
Round cells	AlMn				
	Li-ion	182.4		144.2	38.2
	NiMH	52.1		41.2	10.9
	NiCd	71.6		56.6	15.0
	Pb	41.8		41.8	
Button cells	Li-ion				
	NiMH				
	NiCd				
<b>Subtotal II</b>		<b>347.9</b>		<b>283.8</b>	<b>64.1</b>
Not determined		< 0.1		< 0.1	< 0.1
<b>Total</b>		<b>2232.3</b>		<b>1773.7</b>	<b>458.6</b>

The mass taken back, 458.6 t, used to calculate the collection rate, corresponds to a collection rate of 54.1%.

1. Zusammensetzung auf Basis der Sortierergebnisse.

2. Soweit eine Sortierung nicht möglich ist, beinhalten die Ergebnisse sowohl Primär- als auch Sekundärbatterien.

**BattG** Act governing placement on the market, take-back and environmentally-compatible disposal of conventional and rechargeable batteries

**Primary batteries** non-rechargeable batteries **Secondary batteries** rechargeable batteries

**AgO** Silver oxide **AlMn** Alkaline-manganese **Cd** Cadmium **Li** Lithium **Li-ion** Lithium-ion

**NiCd** Nickel-cadmium **NiMH** Nickel-metal hydride **NiZn** Nickel-zinc **Pb** Lead **Zn-air** Zinc-air

**ZnC** Zinc-carbon



## Mass of recycled batteries: Qualitative and quantitative results for recycling and disposal

Category/scheme	Mass of recycled waste batteries	Mass of disposed waste batteries	Mass of waste batteries sent for recycling outside of Germany
<b>Primary batteries</b>		<b>Tonnes</b>	
Round cells	ZnC	10.8	
	AlMn		119.8
	Zn-air	350.6	
	Li	7.8	
Button cells <sup>1</sup>	AgO		
	AlMn	5.5	
	Zn-air		
	Li		
<b>Subtotal I</b>	<b>374.7</b>		<b>119.8</b>
<b>Secondary batteries</b>			
Round cells	AlMn		
	Li-ion	36.6	
	NiMH	11.7	
	NiCd	15.3	2.0
Button cells <sup>1</sup>	Pb		
	Li-ion		
	NiMH		
	NiCd		
<b>Subtotal II</b>	<b>63.5</b>		<b>2.0</b>
Not determined			
<b>Total</b>	<b>438.2</b>		<b>121.8</b>

<sup>1</sup>Where sorting was not possible, these results include both primary and secondary batteries

Scheme	Mass input (t)	Mass output (t)	Recycling efficiency (%)
Pb			
NiCd	15.3	11.7	76.63
"Others"	422.9	314.6	74.38
<b>Total</b>	<b>438.2</b>	<b>326.3</b>	

Taking into account the annual storage figures carried forward, the recycling rate under Section 15(1) no. 5 BattG amounts to 95.6%.

**BattG** Act governing placement on the market, take-back and environmentally-compatible disposal of conventional and rechargeable batteries  
**Primary batteries** non-rechargeable batteries **Secondary batteries** rechargeable batteries  
**AgO** Silver oxide **AlMn** Alkaline-manganese **Cd** Cadmium **Li** Lithium **Li-ion** Lithium-ion  
**NiCd** Nickel-cadmium **NiMH** Nickel-metal hydride **NiZn** Nickel-zinc **Pb** Lead **Zn-air** Zinc-air  
**ZnC** Zinc-carbon



## Mass of industrial batteries taken back, by category and scheme

Category/scheme	Mass taken back by our scheme	
<b>Primary batteries</b>	<b>Tonnes<sup>1</sup></b>	
Round cells/prismatic cells/ block batteries	ZnC	
	AlMn/NiZn <sup>2</sup>	
	Zn-air	
	Li	
Button cells <sup>2</sup>	AgO	
	AlMn	
	Zn-air	
	Li	
<b>Subtotal I</b>		
<b>Secondary batteries</b>		
Round cells/prismatic cells/ block batteries	AlMn	
	Li-ion	227.9
	NiMH	
	NiCd	
Button cells	Pb	
	Li-ion	
	NiMH	
	NiCd	
<b>Subtotal II</b>	<b>227.9</b>	
Not determined		
<b>Total</b>	<b>227.9</b>	

1. Composition based on sorting results.

2. Where sorting was not possible, these results include both primary and secondary batteries.

**BattG** Act governing placement on the market, take-back and environmentally-compatible disposal of conventional and rechargeable batteries

**Primary batteries** non-rechargeable batteries **Secondary batteries** rechargeable batteries

**AgO** Silver oxide **AlMn** Alkaline-manganese **Cd** Cadmium **Li** Lithium **Li-ion** Lithium-ion

**NiCd** Nickel-cadmium **NiMH** Nickel-metal hydride **NiZn** Nickel-zinc **Pb** Lead **Zn-air** Zinc-air

**ZnC** Zinc-carbon



## Mass of recycled industrial batteries: Qualitative and quantitative results for recycling and disposal

Category/Scheme	Mass of recycled waste batteries	Mass of disposed waste batteries	Mass of waste batteries sent for recycling outside of Germany
<b>Primary batteries</b>		<b>Tonnes</b>	
Round cells/prismatic cells/block batteries	ZnC		
	AlMn		
	Zn-air		
	Li		
Knopfzellen <sup>1</sup>	AgO		
	AlMn		
	Zn-air		
	Li		
<b>Summe I</b>			
<b>Sekundärbatterien</b>			
Round cells/prismatic cells/block batteries	AlMn		
	Li-ion	210.6	
	NiMH		
	NiCd		
Button cells	Pb		
	Li-ion		
	NiMH		
	NiCd		
<b>Subtotal II</b>	<b>210.6</b>		
Not determined			
<b>Total</b>	<b>210.6</b>		

1. Where sorting was not possible, these results include both primary and secondary batteries.

Scheme	Mass input (t)	Mass output (t)	Recycling efficiency (%)
Pb			
NiCd			
"Others"	210.6	170.7	81.0
<b>Total</b>	<b>210.6</b>	<b>170.7</b>	

Taking into account the annual storage figures carried forward, the recycling rate pursuant to Section 15 (3) BattG amounts to 92.4%.

**BattG** Act governing placement on the market, take-back and environmentally-compatible disposal of conventional and rechargeable batteries  
**Primary batteries** non-rechargeable batteries **Secondary batteries** rechargeable batteries  
**AgO** Silver oxide **AlMn** Alkaline-manganese **Cd** Cadmium **Li** Lithium **Li-ion** Lithium-ion  
**NiCd** Nickel-cadmium **NiMH** Nickel-metal hydride **NiZn** Nickel-zinc **Pb** Lead **Zn-air** Zinc-air  
**ZnC** Zinc-carbon



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