

# Bertelsmann Environmental Report 2023

Environmental information referencing the Standards of the  
Global Reporting Initiative (GRI)

[www.bertelsmann.com/responsibility](http://www.bertelsmann.com/responsibility)

**BERTELSMANN**

## Corporate Profile

Bertelsmann operates in the core business fields of media, services and education in around 50 countries worldwide. The geographic core markets are Western Europe – in particular, Germany, France and the United Kingdom – and the United States. In addition, Bertelsmann is active in the growth markets Brazil, India and China. The Bertelsmann divisions are RTL Group (entertainment), Penguin Random House (books), BMG (music), Arvato Group (services), Bertelsmann Marketing Services (direct marketing and printing activities), Bertelsmann Education Group (education) and Bertelsmann Investments (venture capital activities and Bertelsmann Next growth area).

Bertelsmann SE & Co. KGaA is a capital market-oriented but unlisted partnership limited by shares. As a group holding company, it exercises key corporate functions such as the definition and further development of group strategy, capital allocation, financing and management. Internal corporate management and reporting follow the Group's organizational structure, which consists of the operating divisions and Corporate.

RTL Group is a leading European entertainment group in the broadcasting, streaming, content, publishing and digital business, with interests in 60 television channels, seven streaming platforms and 36 radio stations. RTL Group's television channels include RTL in Germany, M6 in France and the RTL channels in the Netherlands, Luxembourg and Hungary, as well as a stake in Atresmedia in Spain. The streaming services comprise RTL+ in Germany and Hungary, Videoland in the Netherlands and 6play in France. The content business, Fremantle, is one of the largest international creators, producers and distributors of scripted and unscripted content in the world. The streaming-tech company Bedrock and the ad-tech company Smartclip are also part of RTL Group. RTL Group is a listed company and a member of the MDAX.

Penguin Random House is, based on revenue, the world's largest trade book publisher, with more than 300 imprints and book brands across six continents. Its well-known imprints include Doubleday, Riverhead, Viking and Alfred A. Knopf (United States); Ebury, Hamish Hamilton and Jonathan Cape (United Kingdom); Goldmann and Heyne (Germany); Plaza & Janés and Alfaguara (Spain); Sudamericana (Argentina); and the international imprint Dorling Kindersley. Each year Penguin Random House publishes more than 16,000 new titles and sells around 700 million print books, e-books and audiobooks.

BMG is an international music company and integrates recording-label and music-publishing business under a shared umbrella. With 20 offices in 13 core music markets, BMG represents more than three million titles and recordings, including iconic catalogs and renowned artists and songwriters such as Jason Aldean, Kylie Minogue, Mick Jagger and Keith Richards, Jennifer Lopez, Lenny Kravitz and Tina Turner.

The Arvato Group is an international service group that develops and implements custom-made solutions for all kinds of business processes, for customers in a wide range of sectors in around 30 countries. Worldrenowned companies from an array of different sectors – telecommunications providers and utility companies, banks and insurance companies, e-commerce, IT and internet providers – all rely on the group's portfolio of solutions ranging from supply chain solutions (Arvato) through financial services (Riverty) to IT services (Arvato Systems).

The Bertelsmann Marketing Services division is a multi-channel full-service provider for the advertising industry, bundling all of Bertelsmann's direct marketing and printing activities. Bertelsmann Marketing Services consists of four business units: the offset printers in Germany; the offset and digital printers in the United States; the Digital

Marketing businesses, which include the content agency Territory, Campaign, DeutschlandCard and the Dialog business, among others; and the Sonopress Group.

Bertelsmann Education Group comprises Bertelsmann's education activities. The group's companies focus on the healthcare and education sectors, in particular education and training, and deliver innovative ways of teaching and learning as well as performance management solutions for students, professionals and organizations. The companies include Brazil's leading university group for medical education and training, Afya, the US continuing education and workforce management solution provider Relias, and the professional practice-oriented Alliant International University.

Bertelsmann Investments bundles Bertelsmann's worldwide venture capital activities, the Bertelsmann Next unit and the Investments & Participations unit. Investments are largely made through the funds Bertelsmann Asia Investments (BAI), Bertelsmann India Investments (BII) and Bertelsmann Digital Media Investments (BDMI), as well as funds and direct investments in the Europe, Brazil, Southeast Asia and Africa regions. The Bertelsmann Next unit is driving the entrepreneurial development of new growth sectors and lines of business, in particular in the areas of digital health, HR tech and mobile ad tech. The Investments & Participations unit includes, among other things, DDV Mediengruppe and the stake in the Spiegel Group.

## Shareholder Structure

Bertelsmann SE & Co. KGaA is a capital market-oriented but unlisted partnership limited by shares. 80.9 percent of the capital shares in Bertelsmann SE & Co. KGaA are held indirectly by foundations (Bertelsmann Stiftung, Reinhard Mohn Stiftung, BVG-Familienstiftung, BVG-Stiftung), and 19.1 percent are held indirectly by the Mohn family. Bertelsmann Verwaltungsgesellschaft (BVG) controls all voting rights at the General Meeting of Bertelsmann SE & Co. KGaA and Bertelsmann Management SE (general partner).

## About this Report

Bertelsmann considers environmental protection to be an integral part of its corporate responsibility. In this annual Environmental Report, Bertelsmann discloses the impacts of its activities and those of its corporate divisions on the environment and its contribution to climate protection.

In this report, greenhouse gas emissions are presented in accordance with the Greenhouse Gas (GHG) Protocol. Environmental indicators for the 2023 financial year presented in this report reference the Global Reporting Initiative (GRI) Standards and the United Nations Global Compact (UNGC). Hyperlinks lead to further information, facts and figures about the responsible conduct of Bertelsmann and its corporate divisions on the Bertelsmann Website. In the financial year 2023, emissions from Majorel were only reported until end of October due to the sale and deconsolidation of the business.

In March 2024, Bertelsmann also published a Combined Non-Financial Statement in the [Bertelsmann Annual Report 2023](#) (pp. 55-69), which complies with the German CSR Directive Implementation Act.

## Introduction

Bertelsmann aspires to become climate neutral by 2030. With its long-term strategy “Bertelsmann Climate Neutral 2030,” the company fulfills its responsibility to reduce and offset greenhouse gas emissions. Bertelsmann joined the Science Based Targets initiative (SBTi) in 2021 and supports the target of the Paris Climate Agreement to limit global warming to well below 2 degrees Celsius.

Supplementing the climate strategy, the company defined further strategic objectives and developed measures from those, as part of the Bertelsmann ESG Program (2021–2024). These objectives include strengthening the governance for climate and environmental protection and further developing environmental planning and reporting. In addition, the company intends to increase the share of renewable energies (green electricity, photovoltaics), implement new mobility concepts, advance energy efficiency, “Green IT,” and the measurement of the digital footprint. Emissions from the print and digital products supply chains are to be presented in a transparent manner and reduced successively in a joint effort with business partners.

The [Bertelsmann Environmental Policy](#), the [Bertelsmann Energy & Climate Policy](#), and the [Bertelsmann Paper Policy](#) provide the framework for the Group’s environmental management. In addition to climate neutrality (see [GRI 305](#)) and the shift to green electricity (see [GRI 302](#)), Bertelsmann strives to ensure the sustainable procurement of paper (see [GRI 301](#)).

Group-wide environmental efforts are coordinated by the Corporate Responsibility (CR) department under the supervision of the Chief Human Resources Officer (CHRO). Cross-divisional coordination is handled by the CR Council, which is chaired by the CHRO. Overall responsibility lies with the Bertelsmann Executive Board, which monitors the achievement of environmental targets annually as part of strategic planning. Operational responsibility for energy and environmental management lies with the managements of the individual Bertelsmann companies. The internationally staffed “be green” working group chaired by the Corporate Responsibility department serves as a platform for cross-divisional environmental engagement. Representatives from the Bertelsmann corporate divisions – e.g., paper buyers, energy and environmental managers, logistics experts, and controllers – regularly discuss current environmental topics and measures. The experts in the “be green” working group also coordinate the Group-wide collection and reporting of environmental data.

Since 2008, Bertelsmann has compiled Group-wide environmental indicators on paper, energy, water and effluents, greenhouse gas emissions, and waste (see [GRI 301, 302, 303, 305, 306](#)). These indicators illustrate the development of the environmental impacts of Bertelsmann and its sites, companies, and corporate divisions. Specific environmental footprint reports help to evaluate opportunities and risks and to report to business partners. They are also used as an information basis for ESG ratings. The basis for environmental reporting is the Group-wide IT platform “green.screen,” a platform for the collection, processing, and analysis of environmental data at all levels of the organization. At the same time, more and more Bertelsmann companies are using “green.screen” for their digital energy data management. All production and logistics sites, the company’s own computer centers, and most of its own and rented office sites were included in the latest data collection process. The environmental data for employees at the remaining office locations was calculated based on average consumption values.

GRI

Disclosure

UNGC

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Materials

**Management approach**VII–  
VIII

Bertelsmann uses a wide variety of materials in the production and logistics of physical products. Besides paper and cardboard, these include, e.g., printing inks, coatings and adhesives, granulate for the production of CDs and DVDs, and plastic-based films and packaging. In addition, materials are procured as part of purchased goods and services.

Paper continues to be of particular relevance to Bertelsmann, representing the most important resource for the company's printing business. Therefore, sustainable forestry, resource conservation, climate protection, and waste avoidance play a major role for Bertelsmann across the entire paper value chain. To protect forests that are valuable for climate and biodiversity, Bertelsmann has issued a [Paper Policy](#) for paper procurement to complement its [Environmental Policy](#). It stipulates, e.g., that no wood from primary or protected forests can be used in paper production. Bertelsmann companies also need to ensure that the paper used has the highest possible proportion of recycled materials in addition to certified wood fibers.

Bertelsmann strives to raise the share of recycled paper and paper from certified, sustainable forestry to 100 percent. Recycled paper as well as paper of certified origin, complying with FSC®, PEFC™, SFI® requirements or comparable standards, are regarded as sustainably sourced paper.

Bertelsmann's media businesses have stepped up their efforts to produce content and products in a resource-conserving manner, e.g., with certified sustainable books and magazines, "green" TV productions, and plastic-free packaging. In their function as providers of print services, Bertelsmann companies in the service business offer their customers an extensive range of sustainably certified and climate-neutral print products.

Information on the general management approach for environmental matters: see [introduction](#).

301-1

**Materials used by weight or volume**VII–  
VIII**Material consumption**

in tons

	2023	2022
Paper <sup>1)</sup>	907,560	1,148,930
Other materials	101,280	76,800
<b>Total materials</b>	<b>1,008,840</b>	<b>1,225,730</b>

1) Including quantities procured via service providers and provided by third parties

In the 2023 financial year, Bertelsmann's total material use decreased by 18 percent. The amount of paper used for print products, packaging paper, and office paper diminished by 21 percent, primarily due to the decline in the printing business. In contrast, the use of other materials increased by 32 percent year on year, in particular due to higher demand of packaging materials by Arvato Group's growing logistics business.

## GRI

## Disclosure

## UNGC

**Paper consumption by division**

in tons

	2023	2022
RTL Group	16,512	25,006
Penguin Random House	275,171	291,267
BMG	3	2
Arvato Group	58,724	39,600
Bertelsmann Marketing Services	596,896	837,642
Bertelsmann Education Group	66	3
Bertelsmann Investments	9,206	13,331
Corporate	74	72
<b>Total paper before consolidation</b>	<b>956,652</b>	<b>1,206,923</b>
<i>Consolidated</i>	-49,085	-57,992
<b>Total paper after consolidation</b>	<b>907,567</b>	<b>1,148,931</b>

The year-on-year development of paper quantities used varied from division to division. Bertelsmann Marketing Services recorded declines in paper quantities of 240,746 tons, primarily due to the closure of the Prinovis gravure printing sites and a decline in demand of print products. Penguin Random House also reported lower paper consumption due to reduced print volumes, constant efforts to reduce the paper grammage and the sale of stocks. The decline of RTL Group's paper consumption is due to lower sales in the magazine business of RTL Germany. The paper consumption of Arvato Group increased due to growing activities in logistics. The increase in paper consumption of Bertelsmann Education is due to the first-time inclusion of Afya in 2023.

## 301-2

**Recycled input materials used**

## VIII

**Paper consumption and share of recycled and certified paper by division**

in tons

	Total paper	of which recycled	of which certified	of which other
RTL Group	16,512	1,307	15,189	16
Penguin Random House	275,171	4,559	259,822	10,790
BMG	3	0	1	2
Arvato Group	58,724	23,915	6,951	27,858
Bertelsmann Marketing Services	596,896	125,590	410,608	60,698
Bertelsmann Education Group	66	1	0	65
Bertelsmann Investments	9,206	8,426	685	94
Corporate	74	48	25	1



## GRI

## Disclosure

## UNGC

own energy generation and expects its energy suppliers to gradually phase out fossil fuels. Increasing transparency about energy consumption thanks to the “green.screen” IT platform supports energy data management at site level and enables cross-site exchange. At this point, energy data from more than 100 national and international sites is compiled and visualized on a daily or monthly basis in “green.screen.”

Information on the general management approach for environmental matters: see [introduction](#).

## 302-1

## Energy consumption within the organization

VII–  
VIII

## Use of fuels and propellants

in megawatt hours (MWh)

	2023	2022
Natural gas	604,200	834,900
Diesel	28,000	29,000
Gasoline	12,700	10,400
Heating oil	4,400	6,700
Other	19,500	16,200
Total	<b>668,800</b>	<b>897,200</b>

Natural Gas is the most important fossil fuel used in Bertelsmann’s operations. Natural gas is used in combined heat and power plants to produce electricity and heat to generate process heat in printing plants and in heating systems for the company’s own heat generation. In the 2023 financial year, a total of 604,200 MWh of natural gas was used for the company’s own energy generation, reflecting a year-on-year decrease of 28 percent. The closure of the Prinovis gravure sites is contributing significantly to the decline in consumption of natural gas. Only a small proportion of heat is generated using heating oil. There was again a decrease in the volume used as compared to the previous year. In the 2023 financial year, 28,000 MWh of diesel were consumed, equivalent to a 3-percent decrease compared to 2022. 82 percent of the diesel was used for company cars, with the remainder used for emergency generators and forklifts. Gasoline consumption by company cars increased by 22 percent, due to a significant increase of travel activities. The remaining energy quantities subsumed under “other” comprise fuels for fleet vehicles, company jets, and renewable fuels. Here, a 20-percent increase occurred, primarily due to the use of liquefied gases for heating purposes. In accordance with the Bertelsmann Energy & Climate Policy, no coal is used in the in-house generation of energy.

## Generation of solar energy

in megawatt hours (MWh)

	2023	2022
Generation of energy through photovoltaics	21,900	16,900
<i>Thereof own consumption</i>	14,300	8,400



Bertelsmann also generates a growing amount of energy from renewable sources. Electricity generation from solar power increased from 16,900 MWh in 2022 to 21,900 MWh in the 2023 financial year. 65 percent of this was consumed by the company itself and the remaining amount was fed into the power grid. The increase in solar energy generation is primarily attributable to Bertelsmann Education's Afya sites, which are reporting in full for the first time this year.

### Procurement of electricity and heat

in megawatt hours (MWh)

	2023	2022
Purchased electricity	446,300	446,600
<i>of which from renewable sources</i>	437,000	337,900
Purchased heat	73,100	91,100
<i>of which from renewable sources</i>	3,100	5,500
<b>Total purchased energy</b>	<b>519,400</b>	<b>537,700</b>

In addition to the fuels and propellants used, Bertelsmann records the procurement of electricity and heat. Besides grid purchases, this also includes energy volumes at rented properties that are provided by landlords. Total purchased energy decreased by 3 percent in the 2023 financial year, while Bertelsmann was able to significantly increase its consumption of renewable energies with certificates of origin.

Bertelsmann has defined mandatory criteria and recommendations for the renewable electricity purchases of its sites worldwide. These criteria cover exclusivity, periodicity, regionality, additionality and type of renewable technologies with reference to the technical criteria of RE100. Bertelsmann is not a member of RE100 but acknowledges the work of the initiative that aims to grow corporate demand for renewable energy and to accelerate the transition to a zero-emission economy.

In the 2023 financial year, about 98 percent of green electricity purchases of all Bertelsmann sites and 99 percent of all sites with more than 100 megawatt hours (previous year: 76 percent) were aligned with RE100 technical requirements as published in 2021. In 13 African and Asian countries no local sourcing solutions were available and renewable energy certificates were sourced in other grid-connected or nearby countries instead.

### Energy consumption by division

in megawatt hours (MWh)

	2023	2022
RTL Group	95,700	110,900
Penguin Random House	82,800	92,400
BMG	2,600	2,700
Arvato Group	316,500	323,400
Bertelsmann Marketing Services	642,800	877,600
Bertelsmann Education Group	32,800	5,000

GRI	Disclosure	UNGC	
	Bertelsmann Investments	10,100	12,900
	Corporate	19,200	18,200
	<b>Total energy consumption</b>	<b>1,202,500</b>	<b>1,443,100</b>

Total energy consumption includes the fuels and propellants used, self-generated energy, and energy volumes purchased. In the 2023 financial year, Bertelsmann Marketing Services accounted for by far the largest share of total consumption at 53 percent. However, due to production declines and the aforementioned closure of Prinovis sites, consumption fell by 27 percent year-on-year. The Arvato Group followed with 26 percent and RTL with 8 percent. The remaining 13 percent were distributed among the other corporate divisions. The Bertelsmann Education Group recorded a strong increase due to the first-time full integration of Afya in the reporting year 2023. Total energy consumption decreased by 17 percent compared to the previous year.

The decrease at RTL Group is driven by energy savings at all business units and a challenging market environment. Part of the decline is also attributable to RTL Luxembourg, which has discontinued some of the activities at their locations.

<b>302-2</b>	<b>Energy consumption outside of the organization</b>	<b>VII–VIII</b>
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**Mobility**

in millions of kilometers

	2023	2022
Employee commutes	676	637
Business travel	169	122
<b>Total mobility</b>	<b>845</b>	<b>759</b>

Employee mobility increased in the 2023 financial year, mainly due to the continued return to pre-pandemic travel activities. The number of kilometers traveled by employees commuting to work and on business trips increased by 11 percent compared to the previous year. Increased working from office throughout the year raised this share by 6 percent. Likewise, the number of kilometers traveled on business trips increased by 39 percent.

<b>302-3</b>	<b>Energy intensity</b>	<b>VIII</b>
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Energy intensity, the ratio of the sum of the recorded total energy consumption values in megawatt hours to the total revenues reported in the consolidated financial statements (in millions of euros), was at 60 in the 2023 financial year. Compared to the previous year (71), this represents a further decline by 15 percent.

<b>302-4</b>	<b>Reduction of energy consumption</b>	<b>VII–IX</b>
	See <b>GRI 302-1</b> .	

## 303 Water and Effluents

**Management approach**

Data on water consumption and effluents are also recorded Group-wide as part of the annual environmental data survey, using the “green.screen” IT platform. Based on this

**VII–VIII**

GRI	Disclosure	UNGC																																													
	<p>data, trends can be discerned and potential for improvement identified. Regarding the regulation of water management, these topics are predominantly handled by the local sites.</p> <p>Information on the general management approach for environmental matters: see <a href="#">introduction</a>.</p>																																														
<b>303-1</b>	<p><b>Interactions with water as a shared resource</b></p> <p>See <a href="#">GRI 303 Management approach</a>.</p>	<b>VII– VIII</b>																																													
<b>303-2</b>	<p><b>Management of water discharge-related impacts</b></p> <p>See <a href="#">GRI 303 Management approach</a>.</p>	<b>VII– VIII</b>																																													
<b>303-3</b>	<p><b>Water withdrawal</b></p> <p><b>Water withdrawal by source</b> in thousands of cubic meters</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: right;">2023</th> <th style="text-align: right;">2022</th> </tr> </thead> <tbody> <tr> <td>From public utilities</td> <td style="text-align: right;">1,181</td> <td style="text-align: right;">1,144</td> </tr> <tr> <td>From groundwater</td> <td style="text-align: right;">2,436</td> <td style="text-align: right;">2,682</td> </tr> <tr> <td>From rainwater storage tanks</td> <td style="text-align: right;">1</td> <td style="text-align: right;">2</td> </tr> <tr> <td><b>Total water withdrawal</b></td> <td style="text-align: right;"><b>3,618</b></td> <td style="text-align: right;"><b>3,828</b></td> </tr> </tbody> </table> <p>In the 2023 financial year, total water withdrawal decreased by 5 percent compared to the previous year. The water withdrawals from public utilities are comparable to the previous year. The use of groundwater from wells decreased by 9 percent, mainly due to lower consumption by RTL Germany.</p> <p><b>Water withdrawal by division</b> in thousands of cubic meters</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: right;">2023</th> <th style="text-align: right;">2022</th> </tr> </thead> <tbody> <tr> <td>RTL Group</td> <td style="text-align: right;">1,991</td> <td style="text-align: right;">2172</td> </tr> <tr> <td>Penguin Random House</td> <td style="text-align: right;">105</td> <td style="text-align: right;">97</td> </tr> <tr> <td>BMG</td> <td style="text-align: right;">33</td> <td style="text-align: right;">31</td> </tr> <tr> <td>Arvato Group</td> <td style="text-align: right;">592</td> <td style="text-align: right;">617</td> </tr> <tr> <td>Bertelsmann Marketing Services</td> <td style="text-align: right;">629</td> <td style="text-align: right;">854</td> </tr> <tr> <td>Bertelsmann Education Group</td> <td style="text-align: right;">230</td> <td style="text-align: right;">9</td> </tr> <tr> <td>Bertelsmann Investments</td> <td style="text-align: right;">12</td> <td style="text-align: right;">16</td> </tr> <tr> <td>Corporate</td> <td style="text-align: right;">26</td> <td style="text-align: right;">32</td> </tr> <tr> <td><b>Total water withdrawal</b></td> <td style="text-align: right;"><b>3,618</b></td> <td style="text-align: right;"><b>3,828</b></td> </tr> </tbody> </table> <p>Water is used to varying degrees in the individual corporate divisions. In the 2023 financial year, there was a decrease in water consumption by Bertelsmann Marketing Services due to the closure of printing sites in Dresden and Liverpool. In addition, water consumption by Arvato Group decreased primarily as the result of the divestment of the Majorel business in the course of the 2023 financial year. This decrease was partially neutralized by an increase in water consumption at the logistic business of Arvato Group. RTL Group</p>		2023	2022	From public utilities	1,181	1,144	From groundwater	2,436	2,682	From rainwater storage tanks	1	2	<b>Total water withdrawal</b>	<b>3,618</b>	<b>3,828</b>		2023	2022	RTL Group	1,991	2172	Penguin Random House	105	97	BMG	33	31	Arvato Group	592	617	Bertelsmann Marketing Services	629	854	Bertelsmann Education Group	230	9	Bertelsmann Investments	12	16	Corporate	26	32	<b>Total water withdrawal</b>	<b>3,618</b>	<b>3,828</b>	<b>VII– VIII</b>
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## GRI

## Disclosure

## UNGC

criteria. For example, the projects must have a long-term orientation and ensure as best as possible that compensated CO<sub>2</sub> emissions are not returned to the atmosphere. In the 2023 financial year, certificates for more than 56,000 tons were offset mainly by a reforestation project in Brazil.

Greenhouse gas emissions are accounted for in accordance with the Corporate Accounting and Reporting Standard, the Scope 2 Guidance, and in line with the Corporate Value Chain (Scope 3) Standard of the Greenhouse Gas Protocol (GHG Protocol). Greenhouse gas emissions are reported in CO<sub>2</sub> equivalents (CO<sub>2</sub>e). In accordance with the GHG Protocol, emissions are reported in three different categories: Scope 1 refers to Bertelsmann's direct emissions, which e.g., result from its own on-site power generation and the operation of printing plants. Scope 2 covers indirect emissions from the generation of purchased electricity and district heating or heat provided by landlords. In accordance with the Scope 2 Guidance of the GHG Protocol, Bertelsmann reports both market-based and site-based emissions in the overview of key indicators. In addition, all relevant indirect emissions (Scope 3) from the value chain are accounted for. In accordance with the Corporate Value Chain (Scope 3) Standard, this includes upstream emission sources such as the purchase and transport of materials and the mobility of employees as well as downstream emissions such as the distribution of products.

Information on the general management approach for environmental matters: see [introduction](#).

## 305-1

## Direct (Scope 1) GHG emissions

VII–  
VIII**Scope 1 and 2 emissions**

in tons of CO<sub>2</sub> equivalents (CO<sub>2</sub>e)

	2023	2022
Scope 1 emissions	149,400	191,100
Scope 2 emissions <sup>1)</sup>	16,500	70,700
<b>Scope 1 and 2 total</b>	<b>165,900</b>	<b>261,800</b>

1) Scope 2 emissions were calculated using the market-based method as indicated in the Scope 2 Guidance of the GHG Protocol. According to the site-based method, Scope 2 emissions amounted to 148,900 tons of CO<sub>2</sub>e (previous year: 171,500 tons of CO<sub>2</sub>e).

The sum of direct (Scope 1) and energy-related indirect (Scope 2) greenhouse gas emissions in the 2023 financial year amounted to 165,900 tons of CO<sub>2</sub>e, a decrease of 37 percent compared to the previous year (261,800 tons of CO<sub>2</sub>e). Scope 1 emissions at Bertelsmann stem primarily from the combustion of fossil fuels such as natural gas. These emissions fell by 22 percent in the 2023 financial year, in particular due to the closure of printing sites at Bertelsmann Marketing Services as well as savings of natural gas consumption at various locations in Europe. Scope 2 emissions from the purchase of electricity and heat were reduced by 77 percent, due to the increased use of green electricity (see: GRI [302-1](#)).

**Scope 1 and 2 emissions by division**

in tons of CO<sub>2</sub> equivalents (CO<sub>2</sub>e)

	2023	2022
RTL Group	7,700	11,800
Penguin Random House	11,300	14,100

GRI	Disclosure	UNGC	
	BMG	100	500
	Arvato Group	35,800	49,900
	Bertelsmann Marketing Services	101,700	178,700
	Bertelsmann Education Group	4,700	800
	Bertelsmann Investments	1,000	2,100
	Corporate	3,600	3,900
	<b>Scope 1 and 2 total</b>	<b>165,900</b>	<b>261,800</b>

Bertelsmann Marketing Services and Arvato Group accounted for the largest share of Bertelsmann's Scope 1 and Scope 2 emissions in the 2023 financial year. This can be attributed to the consumption of electricity, natural gas, and purchased heat by the printing plants at Bertelsmann Marketing Services and the operation of Arvato Groups's logistics sites.

The year-on-year development of Scope 1 and Scope 2 emissions varied across the corporate divisions. At Bertelsmann Marketing Services, 77,000 tons less CO<sub>2</sub>e were emitted than in the previous year, due in part to declines in production (see GRI 302-1). At, RTL Group and Arvato Group, emissions decreased compared to the previous year due to a switch to renewable electricity procurement and changes in weather conditions. Meanwhile, emissions at Bertelsmann Education Group increased due to the first-time full reporting of Afya.

<b>305-2</b>	<b>Energy indirect (Scope 2) GHG emissions</b>	<b>VII–VIII</b>
	See <a href="#">GRI 305-1</a> .	

<b>305-3</b>	<b>Other indirect (Scope 3) GHG emissions</b>	<b>VII–VIII</b>
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#### Scope 3 emissions

in tons of CO<sub>2</sub> equivalents (CO<sub>2</sub>e)

	2023	2022
Materials and services	1,008,700	1,221,400
Energy-related emissions	79,800	56,100
Upstream transports	108,500	140,900
Business travel	64,000	32,900
Commuting by employees	110,300	90,900
Downstream transports	203,700	180,300
Other	141,600	27,400
<b>Scope 3 total before consolidation</b>	<b>1,716,600</b>	<b>1,749,900</b>
<i>Consolidated</i>	-104,300	-104,800
<b>Scope 3 total after consolidation</b>	<b>1,612,300</b>	<b>1,645,100</b>

Within the Scope 3 categories, indirect greenhouse gas emissions from materials and services accounted for the largest share in the 2023 financial year at 59 percent (before consolidation), decreasing by 17 percent compared to the previous year. This included,

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among other things, emissions from paper procurement, printing materials used, external services, and the production of film and TV content.

Downstream transports from the distribution of products accounted for 12 percent of Scope 3 emissions, while upstream transports accounted for 6 percent. Other sources include upstream energy-related emissions (outside Scope 1 and Scope 2), such as commuting by employees, emissions from waste logistics and the end-of-life cycle of Bertelsmann's own products.

Scope 3 emissions (after consolidation) decreased by 2 percent in the 2023 financial year. Energy-related emissions increased by 42 percent primarily due to a change in the methodology of carbon accounting related to the upstream emissions of green electricity purchases. There was a decline in the material- and transport-related emissions due to the declining printing business, primarily driven by Bertelsmann Marketing Service and Penguin Random House. In contrast, scope 3 emissions in the downstream transportation segment increased due to Arvato Group's growing logistics activities. Scope 3 emissions from business travel increased by 95 percent. This is due to higher underlying emission factors for 2023 and a return to pre-covid levels. In parallel, employee-related Scope 3 emissions from commuting increased by 21 percent as employees continued to return to the office after the covid restrictions. Furthermore, a methodological change in the end-of-life category to better reflect waste management practices in core markets led to a significant increase in the segment "other".

### Scope 3 emissions by division

in tons of CO<sub>2</sub> equivalents (CO<sub>2</sub>e)

	2023	2022
RTL Group	205,600	167,700
Penguin Random House	564,400	548,600
BMG	9,300	13,000
Arvato Group	335,900	265,000
Bertelsmann Marketing Services	570,600	732,700
Bertelsmann Education Group	15,000	2,800
Bertelsmann Investments	11,100	17,400
Corporate	4,700	2,700
<b>Scope 3 total before consolidation</b>	<b>1,716,600</b>	<b>1,749,900</b>
<i>Consolidated</i>	-104,300	-104,800
<b>Scope 3 total after consolidation</b>	<b>1,612,300</b>	<b>1,645,100</b>

In the 2023 financial year, Bertelsmann Marketing Services and Penguin Random House generated the largest share of Scope 3 emissions, at around 33% each (before consolidation). 20 percent of total Scope 3 emissions were attributable to the Arvato Group. The other corporate divisions accounted for the remaining 14 percent.

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**Overview of total GHG emissions**in tons of CO<sub>2</sub> equivalents (CO<sub>2</sub>e)

	2023	2022
Scope 1 emissions	149,400	191,100
Scope 2 emissions	16,500	70,700
Scope 3 emissions	1,612,300	1,645,100
<b>Scope 1, 2 and 3 total</b>	<b>1,778,200</b>	<b>1,906,900</b>

In the 2023 financial year, the total direct and indirect greenhouse gas emissions (Scope 1, 2 and 3) accounted for around 1.8 million tons of CO<sub>2</sub>e, of which 91 percent stemmed from indirect emissions along the value chain (Scope 3).

## 305-4

**GHG emissions intensity**

## VIII

Specific greenhouse gas emissions (Scope 1 and Scope 2) fell from 12.9 tons of CO<sub>2</sub>e per 1 million euros of Group revenue in the 2022 financial year to 8.2 tons of CO<sub>2</sub>e per 1 million euros of Group revenue in the 2023 financial year. Compared to the previous year, this represents a decline by 36 percent.

## 305-5

**Reduction of GHG emissions**

## VII–

**Change in GHG Emissions compared to the base year**

## VIII

Bertelsmann aims to cut its recorded greenhouse gas emissions by 50 percent compared to the 2018 baseline by 2030 (see [GRI 305 Management approach](#)). In the 2018 baseline, a small proportion of the total 2.5 million tons of CO<sub>2</sub>e (19 percent) was generated at Bertelsmann's own sites (Scope 1 and Scope 2) and, accordingly, the largest proportion of 81 percent was generated along the value chain (Scope 3). One major source of Scope 1 and Scope 2 emissions is the combustion of natural gas/the purchase of electricity at Bertelsmann's own sites. The majority of Scope 3 emissions are attributable to the value chain of print products.

Since the 2018 baseline year, total emissions have already been reduced by 29 percent to 1.8 million tons of CO<sub>2</sub>e despite rising revenues. The shift to green electricity at the company's own sites at all corporate divisions led to a saving of about 90,000 tons of CO<sub>2</sub>e. In addition the overall switch to green electricity generation in the national grid mix led to savings of 51,000 tons of CO<sub>2</sub>e. Despite increasing mobility activities in the reporting year, there is still an absolute reduction of 24,000 tons of CO<sub>2</sub>e due to increased remote work and reduced business travel. Much of the savings is attributable to production declines in the printing business, which reduced the emissions at Bertelsmann Marketing Services by around 510,000 tons of CO<sub>2</sub>e and at the publishing business of RTL Group by more than 24,000 tons of CO<sub>2</sub>e. Effects due to portfolio changes are barely visible at 7,000 tons, as the changes resulting from acquisitions and divestments mutually neutralize each other.

In addition, further reductions were realized through increased energy efficiency at the company's own sites and through reduced emissions in content production. Meanwhile, increases were observed in the growth businesses mainly of Arvato (formerly Arvato Supply Chain Solutions). These resulted in an increase of about 126,000 tons of CO<sub>2</sub>e since the 2018 baseline. An increase in emissions was also observed due to methodology changes such as improved quality of CO<sub>2</sub> factors.

See [GRI 305-1](#), [305-3](#).



<b>GRI</b>	<b>Disclosure</b>	<b>UNGC</b>
<b>306</b>	<b>Waste</b>	

**Management approach****VIII**

The highest quantities of waste at Bertelsmann are generated in the printing services and logistics business and consist largely of paper waste. This primarily includes paper waste from the printing process, or waste paper from books and magazines, as well as packaging paper in the logistics units. Further waste from materials, such as metals and chemicals, is generated in the printing and production processes. In the logistics units, waste is also generated from transport materials made of wood and plastic. In addition, small quantities of waste are generated at the office sites.

In addition to the waste generated at the company's own sites, waste is also generated at the end of the lifecycle of its own products. This is mainly waste from paper, which to a high degree is recyclable and, depending on the local disposal infrastructure, is in fact already largely recycled.

Data on waste generation is also recorded Group-wide as part of the annual environmental data survey, using the IT platform "green.screen." Based on this data, trends can be discerned and potential for improvement identified. Bertelsmann's businesses strive to maximize the recycling of materials. Waste is generally recycled and disposed by private or municipal disposal companies outside the sites. Disposal is handled very differently from region to region and is the operational responsibility of the local management of Bertelsmann companies. At some sites, such as Corporate and Arvato Systems, discarded IT equipment is collected and given to a social services provider for reprocessing.

Information on the general management approach for environmental matters: see **introduction**.

<b>306-1</b>	<b>Waste generation and significant waste-related impacts</b>	<b>VIII</b>
	See <b>GRI 306 Management approach</b> .	

<b>306-2</b>	<b>Management of significant waste-related impacts</b>	<b>VIII</b>
	See <b>GRI 306 Management approach</b> .	

<b>306-3</b>	<b>Waste generated</b>	<b>VIII</b>
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**Waste by type of disposal**

in tons

	<b>2023</b>	<b>2022</b>
For recycling	175,010	204,330
For energy recovery	5,750	13,540
For incineration	970	950
For landfill and other	6,770	6,710
<i>Of which classified as hazardous</i>	10,400	1,400
<b>Total waste</b>	<b>188,500</b>	<b>225,530</b>

In the 2023 financial year, the total amount of waste decreased by 37,030 tons compared to the previous year. 93 percent of the total waste reported was recycled for materials and

**GRI****Disclosure****UNGC**

3 percent for energy recovery. The remaining 4 percent was either incinerated without energy recovery or sent to landfill and other disposal methods. From the total 188,500 tons of waste, 10,400 was classified as hazardous. A large-scale disposal of damaged products from a customer at an Arvato Group logistics site accounted for the increase in hazardous waste compared to 2022 financial year.

**Waste by type of material**

in tons

	2023	2022
Paper	150,980	183,550
Plastics	4,140	3,460
Metals	2,600	1,640
Printing inks and other chemicals	1,350	1,260
Wood	4,110	3,230
Mixed waste	7,180	6,680
Other	18,140	25,710
<b>Total waste</b>	<b>188,500</b>	<b>225,530</b>

In the 2023 financial year, about 80 percent of the waste consisted of paper, e.g., from the printing processes of books and magazines. Metals and chemicals from the printing and production processes accounted for 2 percent of the waste. The wood and plastic waste for the transport of products or materials comprised 4 percent of the waste. Mixed waste, such as residual waste, or unclassified other waste accounted for the remainder. There is generally no differentiated reporting on this at the office sites.

**Total waste**

in tons

	2023	2022
RTL Group	1,450	1,270
Penguin Random House	10,510	19,020
BMG	40	40
Arvato Group	54,930	52,370
Bertelsmann Marketing Services	118,690	150,600
Bertelsmann Education Group	740	10
Bertelsmann Investments	1,740	1,800
Corporate	400	420
<b>Total waste</b>	<b>188,500</b>	<b>225,530</b>

GRI	Disclosure	UNGC
	<p>The recorded waste volumes differed from division to division. At 63 percent, Bertelsmann Marketing Services' printing plants generated the largest share of total waste in the 2023 financial year. Waste volumes at Bertelsmann Marketing Services went down by 31,910 tons compared to the previous year, in particular due to closure of printing sites. The increase in waste volumes at Arvato Group is attributable to the growth of logistics business. The decline at Penguin Random House is due to less waste from larger clearance projects. The remaining divisions generated 2 percent of the recorded waste.</p>	
306-4	<p><b>Waste diverted from disposal</b> See GRI 306-3.</p>	VIII
306-5	<p><b>Waste directed to disposal</b> See GRI 306-3.</p>	VIII

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