





Forward from CEO of Penguin Random House UK

The 2020s will determine whether we have a chance of averting irreversible damage to our climate.

Last year, A United Nations (UN) environmental study revealed that the planet is on track to warm by 2.7°C this century, and we know that as part of the Paris Agreement, temperatures need to be kept to a maximum of 1.5°C to combat the worst impacts of climate change. Several more reports show that greenhouse gas emissions are at record levels, with consequences likely to affect current and future generations.

As a publisher, one of our most important roles is through the books we publish and their power to change minds and influence behaviour. We also must take urgent action to put sustainability at the heart of our business strategy and the decisions we make every day. Therefore, it is vital for us to innovate and improve to reduce the environmental impact of our own operations.

For many years we have been working to ensure our books are made with sustainability in mind. Since 2020 we have taken strides to accelerate our work, developing internal tools, processes, and policies that support positive behaviour change, as well commit to industry standards and partnerships that elevate our work and drive long term, sustainable action.

This year, our carbon emissions have increased in certain areas, whilst decreasing in others. There are many factors as to why certain areas increased, but, most importantly, continued supply chain disruption and more robust carbon data capturing processes means our impact was higher in 2021 than previous years.

It is imperative that we take full accountability of the greenhouse gas emissions we emit as part of our business operations, which is why we produce our annual carbon impact report. We aim to show where our biggest impacts lie within our business and demonstrate how and where we're taking action.

We are committed to mitigate our impact on the planet and understand that we have a direct role to play in combatting the climate emergency. Sustainability is one of our core values, as thinking and acting for the planet underpins everything we do, every day.

Tom Weldon CEO, Penguin Random House UK

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Our commitments at a glance

As the UK's leading publisher, it is vital for us to innovate and improve to reduce the environmental impact of our own operations.

We are committed to managing environmental issues effectively across our entire global supply chain. This is the right thing to do, but it is also in the knowledge that disruption from extreme weather and climate change can have an impact on our global operations and business in the future, so it makes good business sense too.

Our three key areas of focus are:

Journey to zero

Become climate neutral in our global value chain by 2030 and maintain climate neutrality in our direct operations.

Design for the future

Ensure 100% of our paper and other core materials are ethically and sustainably sourced.

Content

Use the power of our brand, books, and authors to amplify the climate emergency and encourage positive behaviour change



Our environmental impacts a glance

We have pledged to become Climate Neutral across our global value chain by 2030. To do this we must reduce our carbon footprint as much as possible and then offset any remaining irreducible emissions.

Our footprint measures the amount of greenhouse gasses (Co₂e) released into the Earth's atmosphere as a result of the activities of our business. To measure our footprint, we capture carbon emissions in the below scopes:



Our direct carbon footprint (Scopes 1 and 2):

*Where we've offset our remaining emissions

- The energy used to power our offices and distribution centres
- Company vehicles
- Air conditioning and heating of offices



Our indirect carbon footprint (Scope 3):

*Where our biggest impact lies

- The energy used to power our printers and paper mills
- How we source our raw materials, especially our paper
- Employee travel
- Material and Distribution travel
- Packaging

Our methodology

When we measure our carbon impact, we count all of it.

This means that our carbon accounting includes all the indirect carbon in our supply chain (known as Scope 3) as well as our direct impacts such as the energy we use to power our offices and warehouses (Scopes 1 & 2). We believe this is the only way to understand our true impact.

Our carbon footprint is based on research, data gathering and supplier questionnaires. We also work with closely our parent company, Bertelsmann, and follow the Department for Environment, Food & Rural Affairs (DEFRA)'s carbon calculations.

What changed in 2021?

In 2021 we expanded our scope of reporting to include new business areas such as packaging and CD manufacturing. Importantly, we strengthened our print and paper supplier data, including all of their scopes of emissions (one, two and three) to ensure we accounted for everything.

These additions to our carbon reporting have retrospectively increased our 2020, 2019 and 2018 carbon emissions.

In future years, we expect to see some fluctuation to previous carbon impact figures as new information becomes available. Importantly, this will not stop us implementing our reduction strategy. Click <u>here</u> to find out more.

Terminology

Throughout this report we refer to Co₂e rather than CO2 when discussing emissions. Co₂e stands for 'Carbon Dioxide Equivalent' which includes CO2 (Carbon Dioxide) and other greenhouse gases such as carbon monoxide and methane. By reporting on Co₂e, we ensure that we are accounting for all the greenhouse gases that are emitted in our supply chain, not just carbon dioxide.

Baseline year

A baseline year is a fixed point in time against which future emissions and our progress towards climate targets are measured. Our baseline year for carbon reporting is 2018, in line with our parent company Bertelsmann.

Our Carbon Impact

Our carbon footprint accounted for 49,065 tonnes of Co_2e (as our complete carbon emissions). This was an increase of 13% compared with 2020 (2020 Co_2e emissions are now 43,364 tonnes respectively).

Key stats of 2021:

- \rightarrow Our carbon footprint per book is 0.01kgs higher than 2020, and now sits at 0.33kgs per average book.
- \rightarrow Our overall carbon footprint has decreased by 11% compared to our baseline year of 2018.
- \rightarrow We've removed 2,189 tonnes of Co₂e emissions since 2020, going climate neutral in our direct operations.
- → Over 50% of our books were printed using renewable energy and produced locally in the UK.
- → 100% of our paper is sustainably sourced (FSC[™] certified)
- → 35% of our books are delivered straight from our printer, which means less carbon is used during transportation as books are delivered straight to our customers.
- \rightarrow We installed over 1,000 solar panels in our Frating Warehouse

Our stats in more detail: Sites

This table shows the tonnes of carbon we've released since 2018 at our head offices and sites.

You can see some of these have increased in emissions, whilst others have decreased. Importantly, our overall site emissions have decreased by 71% compared to our baseline year of 2018.

You will also see that 2020 and 2021 are greyed out, as we've been offsetting all our site emissions since 2020.



Site related emissions in 2021 (Scope 1&2):

Site related emissions	2018	2019	2020	2021	+/- 2021 to 2020	+/- 2021 to 2018
Mobile Fuels	64	63	32	33	4%	-48%
Stationary Fuels	81	53	21	31	49%	-62%
Electricity	3,341	0	0	0	0%	-100%
Heat	1,629	1,143	981	1,178	20%	-28%
Refrigerant Losses	3	0	141	36	-74%	1054%
Waste	135	123	83	168	103%	24%
Energy emissions	216	146	124	151	22%	-30%
Total Site emissions	5,470	1,528	1,381	1,597	16%	-71%

What type of emissions are these?

- Mobile fuels: All vehicles owned or leased by an organisation that burn fuels producing greenhouse gases.
- Stationary fuels: Stationary fuel combustion sources are devices that combust solid, liquid, or gaseous fuel, generally for the purposes of producing electricity, generating steam, or providing heat or energy.
- Electricity: Electricity purchased and used by the organisation.
- Heat: Emissions associated with fuel combustion in boilers, heat pumps etc.
- Refrigerant losses: Gases released from air conditioners and refrigerators, fire suppression systems, and certain industrial chemicals and processes.
- **Waste:** The treatment of waste generated in operations. None of our waste goes to landfill, it is collected by a waste management third-party and recycled or reused.
- **Energy Emissions:** The emissions from energy are associated with the generation of electricity and the transportation of people and goods.

Our stats in more detail: Employees

This table shows the tonnes of carbon we've released since 2018 from our employees, whether they're commuting to work or travelling for the business.

You can see most of these have decreased in emissions since 2018, except for IT devices, which increased during the pandemic, however this is lower in 2021 compared to 2020.

Importantly, our overall employee emissions have decreased by 67% compared to our baseline year of 2018.



Employee related emissions in 2021 (Scope 3):

Employee related emissions	2018	2019	2020	2021	+/- 2021 to 2020	+/- 2021 to 2018
Business Travel	2,561	1,322	54	82	52%	-97%
Hotel Stays	223	219	30	30	0%	-87%
Office Paper	175	160	43	37	-14%	-79%
IT Devices	150	157	499	228	-54%	52%
Employee Commuting	2,386	2,386	1,017	1,413	39%	-41%
Total Employee emissions:	5,494	4,244	1,643	1,790	9%	-67%

What type of emissions are these?

- Business travel: This includes any flights, rail or car transport an employee has used as part of travelling for work with Penguin Random House UK.
- Hotel stays: The number of emissions associated with staying in a hotel as part of travelling for work.
- Office paper: Emissions associated with the office paper we buy and use in our head offices and sites.
- **IT Devices**: The number of monitors, laptops and mobile devices upgraded for employees each year.
- **Employee Commuting:** How our employees travel to work, whether this is through public transport, cycling, walking or by car.

Our stats in more detail: Value chain

This table shows the tonnes of carbon we've released since 2018 from our value chain.

This year, most of our emissions have increased, one of the main reasons for this is that we, along with many others, faced global supply chain disruption and material shortages, meaning some of our orders had to be placed further away from home. We explain this in more detail below.



Value Chain related emissions in 2021 (Scope 3):

Value chain related emissions	2018	2019	2020	2021	+/- 2021 to 2020	+/- 2021 to 2018
Paper Mills	16,098	13,874	18,424	20,908	13%	24%
Printers	15,767	12,803	14,254	15,343	8%	-3%
Warehouses services	3,011	954	505	460	-9%	-85%
Transport: Mill to Printer	2,647	2,544	2,883	3,740	30%	41%
Transport: Printer to Customer	3,242	2,386	3,071	3,970	29%	22%
Delivery & returns	860	934	924	922	0%	7%
*CDs	24	19	12	16	33%	-33%
*Packaging	745	745	745	745	0%	0%
Product: End of Life	662	785	902	1,037	15%	57%
Total Value chain emissions:	43,866	35,044	41,720	47.275	13%	8%

What type of emissions are these?

- **Paper Mills:** The extraction of trees and the energy, water and heat used to process them into paper reels.
- **Printers:** The manufacturing of paper reels and other materials, turning them into finished books.
- Warehouse services: Emissions associated with the energy and heat used in our warehouses.
- **Transport, mill to printer**: The transport emissions with distributing our paper reels to our printers.
- **Transport, printer to customer**: The transport emissions with distributing our books from our printers to our warehouse or direct to customers.
- Delivery & returns: How many pallets and parcels we send to customers and how many are returned.
- CDs: The emissions associated with manufacturing our CD's. *(new area)
- Packaging: Emissions associated with packaging good and materials. *(new area)
- Product end of life: Estimated emissions of how our books are used by our customers.

Spotlight: Why have our value chain emissions increased?

In 2021 our value chain emissions increased compared to 2020, this is down to several factors.

Printing locally in China:

We produced a significantly higher number of books for Chinese customers. As part of this deal, it was a requirement to produce locally in China. In doing this we saw our overall emissions increase. This is because our Chinese suppliers, on average, have a higher footprint than those based in Europe. From our own carbon collection data, we can see the average amount of Co_2e released per tonne of paper in different regions.

The difference in emissions can be down to many factors, such as the size of the site, machinery used, amount of energy and heat used, how much water and waste is produced etc. It's important to understand that no supplier emits the same amount of carbon emissions, and that each of our suppliers will be different and vary in their capabilities. They are also at different stages in their own sustainability journey, and we continue to work closely with our suppliers to help them achieve targets. Find out more <u>here</u>.

Supplier	Europe	East	ROW		
type		Asia			
Printer	317kgs	579Kgs	573Kgs		
Paper	607Kgs	1229Kgs	1084Kgs		

*Average carbon emissions of our printers and paper mills based in Europe, East Asia and Rest of the world (ROW), this data is based on our own 2022 carbon accounting figures.

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Global supply chain issues:

We faced major supply chain disruption and material shortages. This has meant we have had to diversify our supply chain quickly in order to deliver books. In some cases, this will have led to an increase in our emissions. Importantly, though, we always ensure we have full transparency and governance of our complete supply chain, and that all our papers remained FSC[™] Certified.

More robust carbon accounting:

Our carbon collection methodology continues to improve each year. While it is important that we become increasingly transparent, with a clearer understanding and accountability of our supply chain, this inevitably also means our carbon data becomes richer and therefore shows an increase in emissions.

Increasing printing with other Penguin Random House Group companies:

In 2021, we manufactured more books in local territories for Penguin Random House group companies, producing over 9.5 million books (compared to 4.7 million books in 2020) for Penguin Random House Australia, India, South Africa, and the US.

In many instances, these books would have been produced in the UK and shipped to these countries. In some cases, they would have found themselves on a plane to these markets in order to make their deadlines. Producing locally means we reduce our wider group carbon impact, as the freight emissions have significantly decreased. This also allows us to be more agile, reacting to demand quicker and avoiding printing books we don't need.

You can also see these territories fall under 'ROW' which, on average, has a higher footprint than those in Europe. Therefore, by increasing printings locally in these markets, we're reducing our customers' freight emissions but also increasing our production emissions in turn. To combat this, we have targets in place to support our suppliers in reducing their own emissions.



How we will reduce our value chain emissions

We have targets in place to reduce our value chain emissions, specifically for publishing operations, we have four main targets to achieve, and they are measured against the below performances:

- = performing well
- = performing well but with significant challenges this year
- = Significant challenges

Target: 25% reduction in the carbon footprint coming from our production suppliers

The challenges we face in minimising our impact stems from how we used to account for our suppliers' carbon emissions, compared to now. We have much more conclusive carbon data for our printer and paper mill suppliers, and each year, as we increase our levels in reporting, we find new carbon impact areas to include for our suppliers and consequently increase our own impact.

While this does present a challenge, most importantly, the greater transparency also allows us to work closely with our key suppliers to support them in reducing their own emissions in a more targeted way.

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We have a global supply chain, and work across 17 different countries to produce our books.

The majority of our papers are purchased directly from 2 mills in Sweden and, we know that, relative to other similar paper grades, their carbon emissions are low. For all other papers, printers' source these on our behalf, always ensuring our sustainability standards are maintained.

We will continue to work with all of our suppliers to adopt more sustainable practices. In 2021, just under half of our global printers used either part of full renewable electricity in their factories, and 75% of printers have set energy reduction targets. Our largest supplier, based locally in the UK, manufactures our books using only renewable energy.

In 2023 we will be introducing new KPI's for our teams that focus on specific reduction targets, they are:

- 1. Limit the amount of high carbon papers we use, moving away from selected papers until carbon emissions are reduced
- 2. **Investigate the use of train transport** when printing in Italy and aim to start testing production runs
- 3. **Create a green materials library for all our colleagues** to support them to use more sustainable finishes
- 4. Increase production of vegetable-based printing inks to 100% on our colour books
- 5. **Collaborating with our high carbon printers,** to support them to adopt sustainable process to reduce their emissions

How we will reduce our value chain emissions

Target: 100% of printers and paper suppliers are considered 'best practice' by 2023

Not only do we want to reduce our climate impact, but we also want to ensure that 100% of our paper and other core materials are ethically and sustainably sourced, which is why we have an incredibly robust ethical trade and sustainability programme that specifically looks at our suppliers responsible sourcing methods.

Our aim is to continuously improve all our suppliers' standards, so we have adopted a grading approach to help identify the gaps in suppliers' capabilities. Suppliers are graded on their social compliance audits, carbon footprint accounting, sustainable certification, and the implementation of sustainable materials. We then hold meetings with suppliers to address any areas of concern and support them in meeting our best practice requirements.

We work with key partners in the industry to support our plan, including ICTI (Ethical Toy Programme). ICTI membership provides us with improved access and transparency of audit findings, allowing us to act quickly should non-compliances be identified. All suppliers are also required to sign up to the <u>Book Chain Project</u> (BCP), which collects and analyses data from suppliers of over 28 book and journal publishers, bringing supplier data together in one place for complete transparency. BCP covers forestry sources, chemical and materials, and fair labour rights. Both platforms develop key resources to support suppliers adopting best practice.

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Target: 100% of editorial and design teams will take part in Sustainable Production Toolkit training by end of 2021

We created the Sustainable Production Toolkit in December 2021 and trained all design, editorial and production colleagues in January 2022. We felt that January was the right time to train our colleagues, as we could start afresh for the year ahead, creating more impact. The toolkit is designed to help teams make more informed choices about the type of paper we use, where we print our books, and the kinds of finishes (such as foil or glitter) we use on our books. In 2023, we will refresh this toolkit and add in more options for colleagues to produce books with sustainability in mind.

Target: 100% of the promotional packaging and materials we use are recyclable or made from sustainable materials by 2025

The Sustainability Production Toolkit also contain sections that are relevant to wider parts of the business, like sales and marketing, to support them in considering materials with a low environmental impact when placing orders.

In 2023, we will create a green materials library for all colleagues to come and see some of our more sustainable materials used by suppliers, we are also working with the marketing team to implement something similar for when we deal with ad-hoc requests as part of promotional campaigns.

How we will reduce our direct operations, distribution, and logistics emissions

We have several targets in place to reduce our direct operations, distribution, and logistics emissions, they are:



Target: 20% reduction in office energy by 2025

We are on target to achieve this by 2025. We are continuously looking at ways to save energy across all the Penguin Random House UK sites, including LED lighting, heating controls, insulation, and the introduction of 1,040 solar panels at the Frating distribution centre. Total energy use for 2021 was 43% less than used in 2018. We also switched to renewable electricity supplies for all Penguin Random House UK sites from 2019 onwards.

Target: 100% LED lighting throughout all our sites by the end of 2021

Our head offices in London use 100% LED lights. The Frating Distribution centre uses 95% LED lights, and The Grantham Distribution centre uses 65% LED lights and 35% T5 Energy saving lights. We plan to switch all sites over to LED once the remaining lights reach their end of life.

Target: 50% reduction in carbon emissions from business travel by 2025

In 2021, overall employee business travel decreased by 97% and commuting travel decreased by 41% compared to 2018.

We know these reductions are still primarily down to the effects of the Covid-19 pandemic. Importantly, we are putting in place a sustainable travel policy in early 2023. This policy is aimed at colleagues who travel for work and will inform them of the most sustainable way to travel, whether it's choosing rail options or offsetting their travel emissions.

We have found that hybrid ways of working have supported less colleagues traveling for business, yet there are times when it is business critical to travel. When this is the option, we consider alternatives to air travel and do not take domestic flights.

In our distribution centre, where colleagues rely on driving to the office, we continue to install more electrical charging points to support the growing demand for electrical car users.



How we will reduce our direct operations, distribution, and logistics emissions

Target: Achieve ISO 14001 certification by end of 2022 for all our UK owned sites

ISO 14001 certification will help us map out a framework we can follow to achieve an effective environmental management system. Two sites have already achieved certification, two further sites request have been submitted, and we expect these to be achieved by March 2023.

Target: Create a road map to reduce our carbon emissions with our transport carriers by the end of 2021

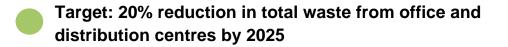
We have carried out a transport survey and are working with our transport carriers to reduce carbon emissions by implementing:

- Better load consolidation •
- A new Transport Management System, to drive more efficiency of vehicle travel and utilisation
- More deliveries to local customer hubs and reducing ٠ travel to hubs that are far away. 35% of deliveries now go direct to customers from the printer
- Utilising backhaul transport to reduce overall empty • mileage



Target: Roll out a bespoke distribution training programme for staff on waste and recycling by 2022

This has now taken place at our Grantham site, but there have been delays across the other sites and training is set to be rolled out across Frating by the end of March 2023.



We are making changes across our sites, such as reusing cardboard waste at our Grantham warehouse to void fill inside the packages we are sending out, to ensure this is on track for 2025. Plastic packaging purchased in 2021 was 69% less than purchased in 2018.



Where we're taking action

Setting science-based and ambitious climate targets

In 2020, we joined the <u>"Science Based Targets"</u> initiative (SBTi), as part of our parent company Bertelsmann. SBTi advocates for ambitious and scientifically based climate targets. In 2020, SBTi audited Bertelsmann's Co₂e accounting principles and carbon emissions reduction plans. Their audit confirmed that the Group's target of cutting emissions by 50 percent by 2030 is ambitious and in line with the Paris Climate Agreement. Through a combination of reducing emissions and carbon offsetting, we aim to meet our overall target to be climate neutral

Carbon Offsetting

We eliminated our scope 1 and 2 emissions by reducing our impact as much as possible and then offsetting what was left, through carbon credits, into protecting forest in Brazil. To make sure our investment of carbon credits has the biggest impact, we are supporting a project set up by our shareholder Bertelsmann in partnership with Climate Partner. The project aims to protect forest located southeast of Campo Grande in Brazil. Find out more <u>here</u>.

Launching our Sustainability Policy and Sustainable Production Toolkit

In Spring 2021 we launched a new bespoke <u>Sustainability</u> <u>Policy</u> for Penguin Random House UK, which set out new principles and targets for all areas of our business. We developed this policy in collaboration with an external environmental consultant. Production, design, and editorial teams have all received mandatory training on our sustainability production toolkit to help empower employees to make more informed choices when producing a book.



Where we're taking action

Strengthening our carbon data

We widened the scope of our 2021 reporting to include new areas such as packaging and CDs. We also worked collectively with other group companies and Bertelsmann to gather more robust carbon data for our paper mills and printers, within our third-party supply chain.

Industry collaboration

We are a founding signatory of <u>Publishing Declares</u>, committing to industry-wide collaboration on climate action in the UK. We also continue to work collaboratively with other publishers and the industry to drive best practice and support climate change reduction strategies. We are members of several sustainability working groups, including the Publishers Association (The PA) and the Book Industry Communication (BIC) where they have developed tools and recourses to tackle carbon emissions in our industry.

Sustainability Hub for readers

We launched a new **sustainability hub** on penguin.co.uk to use the power of Penguin's brand, books, and authors to amplify the climate emergency and encourage positive behavioural change among readers. This hub aims to help readers more easily discover the breadth of our climate publishing.



Case Study – Sustainable Production Toolkit

In January 2022 we launched our Sustainable Production Toolkit.

The toolkit helps our production, design, and editorial colleagues to make more informed choices when producing a book for Penguin Random House UK. We wanted colleagues to consider the environmental impact alongside cost, aesthetics, and availability.

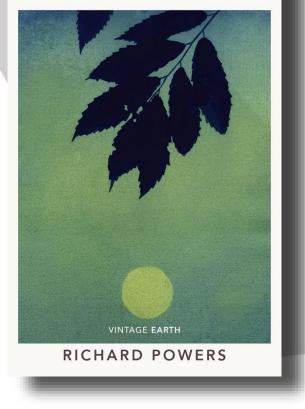
It includes information about the environmental impact of key papers and printers we use for both mono and colour books, as well as other raw materials including glues, inks, and finishes. We trained around 500 colleagues in January and have been working closely with several teams to influence how our books can be made more sustainably.

One project we worked on was <u>The Vintage Earth Series</u>, where our teams really wanted to embed sustainable practices into the production techniques of the book. Therefore, it was made with our lowest carbon paper and produced locally in the UK using only renewable energy, no lamination was placed on the cover, and any residual emissions were offset, with our 'carbon credits' going towards land afforestation in Brazil.

An average book emits 0.33kgs of carbon during manufacturing, whereas these titles only emit 0.02kgs of carbon emissions.

The toolkit has been a huge success, and we are now enhancing this document by including additional materials and making it as accessible as possible. We also plan to share the toolkit wider in 2023 so other publishers may benefit from it.

THE OVERSTORY



Our pledge to climate neutrality

We want to bold, creative and innovative in our approach to combatting the climate emergency. Our goal is to reach climate neutrality by 2030. Importantly, we are considering how we reduce our emissions in the long-term, looking at adopting Net Zero ambitions that align with Science Based Targets.

We know this will not be easy, and as you can see from our report and findings above, that there are challenges we must address and face now to secure our own internal ambitions. It is our ultimate pledge that we will continue to:

- Be bold in our ideas to adopt sustainable practices in our direct operations and value chain.
- Be creative by producing low carbon, sustainable books with circularity in mind.
- Be innovative in how we tackle the climate emergency, ensuring we take colleagues and customers with us on our journey in reducing our impact.
- Be zero by 30 by reducing 50% of our total emissions and offsetting any remaining emissions into positive projects for the planet.

If you have any questions on our sustainability commitments, contact:

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Design by Ty Abiodun & Illustrations by Mike Ellis

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We pledge to be: Bold. Creative. Innovative. Zero by 30.