



DRIVEN BY DISCOVERY

Sustainable Business Report 2022

SPRINGER NATURE GROUP

WELCOME TO SPRINGER NATURE

With 180 years of heritage, and an unmatched reputation as custodians of quality and integrity in research, we publish the world's most influential journals. As the largest academic book publisher, we inspire learning in classrooms and universities, and bring insights into workplaces, hospitals and doctors' surgeries. We are helping to connect the world using technology and innovation, as guided by our purpose – to open doors to discovery.

Our vision

To accelerate solutions to the world's urgent challenges.

We are unlocking the potential of open science and research across all disciplines to accelerate solutions to the world's urgent challenges and improve the lives of generations to come.

Discover our cover image

This year's cover image was inspired by imagery from NASA's James Webb Space Telescope, research from which was published in *Nature* last year. The telescope is making new discoveries about deep space that are helping us understand the origins of the solar system, which in turn can help us understand our own planet.

About this report

Springer Nature's Sustainable Business Report details the management approach and the progress we are making as we address our most material environmental, social and governance (ESG) challenges. We also detail our actions to support the delivery of the Sustainable Development Goals (SDGs), in line with our involvement in the SDG Publishers Compact (see [page 8](#)).

Our reporting covers performance and progress from 1 January to 31 December 2022. Sometimes we refer to activities that began before this timeframe – these are either ongoing projects or relate to our most material issues.

Our reporting covers entities that are part of the Springer Nature Group and has been prepared with reference to the updated Universal Standards of the Global Reporting Initiative (GRI). The GRI index includes more information about the organisation and how we report ([page 41](#)).

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OUR 2022 HIGHLIGHTS

Our work to increase access to research and learning continued in 2022 across all areas of our operations.

€1.82 billion in revenue

1.5 million+ research submissions

~3,000 journals

No.1  reputation score¹

13,000+ research books published

46 countries of operation



7.9 million content downloads per day²

150+ new series of education textbooks, used by 30 million+ learners

154,000+ OA articles

Working with ~750,000 peer reviewers and ~90,000 editors

Nearly 10,000 employees

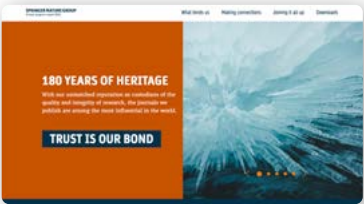
410,000+ articles published



¹ Yonder Reputation Credit Score of 806/1,000, the most positive score among industry peer group.
² Total item requests, using COUNTER 5 code of practice, journal articles and book chapters.

We share our business performance and community work through our suite of annual reports and YouTube channel:

Annual Progress Reports



Sustainable Business Reports



Fully Open Reports



YouTube channel



Springer Nature was awarded a **Silver rating** for sustainability performance from **EcoVadis** in 2022.

JOINT STATEMENT FROM OUR CHAIR AND CEO



STEFAN VON HOLTZBRINCK
CHAIRMAN



FRANK VRANCKEN PEETERS
CEO

With increasing divisions, geopolitical shifts and polarisation in the world, misinformation is a growing problem and a barrier to informed decision-making and progress.

The entire research network, including academics, scientists, funders, governments and publishers, needs to work together to defend scientific truth and to direct policymakers to the best sources. Science works best when it is a truly global endeavour and, in 2022, Springer Nature continued to promote knowledge without boundaries in a number of ways.

When Russia invaded Ukraine, we showed solidarity with our industry peers by condemning the Russian invasion of Ukraine and suspending new sales and marketing activities. At the same time, we took care not to target our action at the researcher or the exchange of trusted knowledge between Russian scientists and the rest of the world.

We continued to invest heavily in technology to distinguish fake news from fact, and to make the research journey smoother and faster. We welcomed two new highly experienced executive team members – Marc Spenlé as Chief

Operating Officer and Harsh Jegadeesan as our first Chief Solutions Officer – to help us accelerate the delivery of tools and systems to improve knowledge exchange and verification. A new and comprehensive programme of support was rolled out for the large external editor and peer reviewer community on whom we rely and we joined a new, industry-wide approach to guard against malicious players and protect research integrity.

A critical way to improve the reach and impact of research remains the transition to open access (OA). By opening up the worlds of science, research, education and healthcare, we can help others learn faster, collaborate more effectively and turn research into reality. With new transformative OA agreements in Egypt, Mexico and Japan, and the first *Nature* OA agreement in the Americas (see page 10), we saw great progress in 2022. Our first-ever fully open access report showed that the work of authors publishing OA with Springer Nature is cited more, and downloaded up to five times more, than articles published by any other fully OA publisher.

We remain committed to accelerating solutions to the biggest challenges facing humanity as articulated by the Sustainable Development Goals (SDGs). In 2022, we published more than 150,000 articles or book chapters related to the SDGs and our content hubs reached 178,000 views.

In another year of temperature extremes, we remained committed to meaningful climate action. In last year's report, we set out short-term carbon reduction targets and shared our commitment to set science-based targets to be net zero carbon through our value chain by 2040. We have made good progress and have undertaken significant work this year on our medium- and longer-term targets (see page 29).

Underpinning all of these developments to promote knowledge are our talented colleagues. Our annual employee

engagement scores increased in 2022, as did our inclusion survey results. More colleagues than ever signed up to join employee networks, and we continued to expand our focus on diversity, equity and inclusion both inside the company and beyond.

It is the people at Springer Nature that make this such an inspiring workplace. As colleagues returned to our offices, we were reminded that there is just nothing like the energy you can get from being in a room of colleagues working with a common purpose. As we work to provide ever better services to researchers, educators and healthcare practitioners, we hope to build on this positive momentum and create a ripple effect for wider society and the planet.



SUSTAINABILITY AT SPRINGER NATURE

At the centre of an extensive network of authors, researchers, editors, educators, funders and policymakers, we disseminate trusted research, make connections between ideas and disciplines, and influence decision-makers globally. We strive to be a sustainable and ethical company that continuously addresses our operational, environmental and social impacts.

Core values

Our sustainable business strategy is rooted in our core business as a publisher of trusted research and analysis. Responsibility is one of our core values. We aim to do the right thing for all our communities and stakeholders, acting as a responsible business, driving sustainable progress in our own operations and through our supply chain, and recognising the ideas and opinions of all.

We make connections between researchers, policymakers and practitioners who are working to tackle some of the world's most urgent challenges.

Our portfolio of books and journals includes dedicated sustainability titles such as *Nature Sustainability*, *Climate Action*, *BMC Global and Public Health*, and the *Encyclopaedia of the UN Sustainable Development Goals*.

Sustainable development content hubs make it easier to find SDG-relevant content (see [page 9](#)).

Innovative publishing formats such as policy briefs bring research to life.

Partnerships and events create new connections and break down research silos.

Our writers and media relations team work to communicate science accurately and clearly, direct to the public, through our own publications – *Nature*, *Scientific American* and *Spektrum der Wissenschaft* – and via mainstream and specialist science and technology media.

Our sustainable business strategy



● Accelerating solutions to urgent societal challenges

We are committed to publishing the highest standard of research with an impact beyond academic circles, to help bring important knowledge to light. More on [pages 8–13](#).

● Using technology to advance discovery and learning

With deep knowledge of our communities, we are working to deploy advanced technologies to better support working practices and open doors to discovery. More on [pages 14–15](#).

● Championing diversity, equity and inclusion (DEI)

One of our highest strategic priorities, we have an internal focus on DEI, and an external view, working with our research, education and professional communities. More on [pages 19–22](#).

○ Living our values

We want our people to feel proud to work for Springer Nature and to live our values and ways of working: partnership, drive, integrity, responsibility. We act ethically and support our communities. We are taking climate action to minimise our impact on the planet by working to reduce our carbon emissions. More on [pages 25–30](#).

SUSTAINABILITY GOVERNANCE AND MATERIALITY

The principles of responsible governance, compliance with laws and ethical business conduct are embedded throughout Springer Nature. Policies, guidance and culture are overseen by members of the management board and wider executive team to ensure we are operating as a responsible business.

Sustainability governance

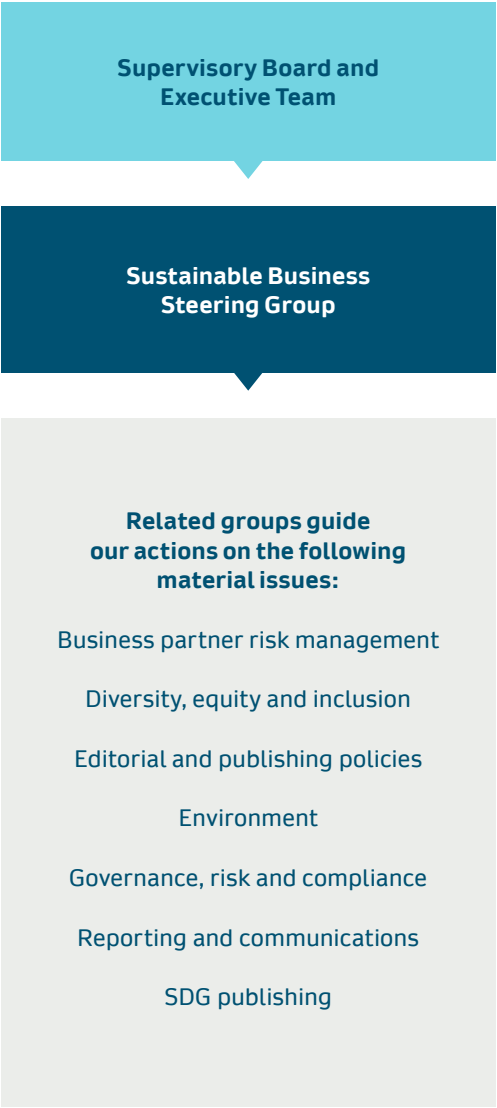
Our sustainable business strategy is overseen by a steering group, which includes members of the management board and executive team. Dedicated committees and working groups focus on specific strategies and the operational activities where they are implemented.

Strategic priorities

Sustainable business and DEI are strategic priorities, with progress against milestones and key performance indicators provided to the supervisory board and executive team quarterly.

Senior leaders oversee core activities that address ESG risks, and work in partnership with oversight committee members (see our [GRI index](#) for more on these members).

Our governance approach



Materiality

The issues deemed most material to Springer Nature are outlined in our materiality matrix. Their placement on the matrix reflects their impact, or potential impact, on the environment and on communities that we work with, as well as on the company’s own operations.

Following a full review of material topics in 2020, the matrix had minor updates in 2021 and 2022, in consultation with internal stakeholders and considering information in the company’s internal risk register. We actively manage and monitor priority issues.

Material topics are shared with the executive team via regular updates and are reflected in our quarterly risk management reporting processes (see more on [page 32](#)).

New issues

In 2022, ‘political uncertainty’ was added to the matrix. This reflects issues that impact on all businesses, including in the research and publishing sectors, and is recently most notably driven by the Russian invasion of Ukraine. Impacts of the war, including associated economic factors and supply chain disruption, have

Materiality matrix



impacted some of our staff, customers and suppliers (read more about our response on [page 23](#)).

Limited assurance engagement

Our auditor, EY, performed a limited assurance engagement on selected

non-financial indicators in the areas of carbon reporting ([pages 26–28](#)), diversity ([pages 19–22](#)) and key data ([pages 37–40](#)). This was conducted in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised). The full statement can be read on [page 35](#).

PUBLISHING

ADVANCING DISCOVERY

We publish trusted research in many formats – digitally and in print, and increasingly open access – to open doors to discovery, enable the development of new ideas and address the world's urgent challenges.

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SUSTAINABLE DEVELOPMENT GOALS

Our sustainable business strategy commits us to addressing the urgent societal challenges presented by the 17 Sustainable Development Goals (SDGs), ratified by all member countries of the UN in 2015. The challenges include poverty, climate change and inequality and set an agenda for global sustainable development.

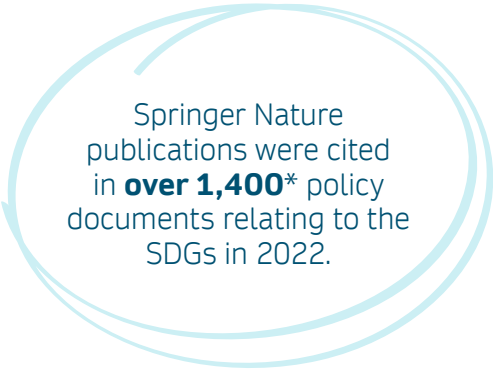
Supporting and advancing the SDGs

The most significant contribution we can make to achieving the SDGs is through the content that we publish. We disseminate new knowledge on the wide variety of issues represented within the SDGs beyond academic circles, and seek to be the publisher of choice for researchers whose work tackles global challenges. We also take into account the impact of our business operations on the SDGs.

We know that the SDGs are important to many of our communities and colleagues.

In 2022, for the third year running, we commissioned research to help us better understand how the communities we work with perceive Springer Nature and its priorities. Nearly 3,000 individuals, including authors, editors, reviewers, librarians and other users of our content, responded. Of those surveyed, 66% had heard of our SDG initiatives (up 20% from 2021) and 50% agreed that Springer Nature is advancing the SDGs (up from 35% in 2021).

In our employee engagement survey, we asked colleagues, for the first time, if they think Springer Nature makes a positive social and environmental impact, and 69% agree that we do.



Since 2015, Springer Nature has:

Published over **800,000 articles** and book chapters relevant to the SDGs, collectively cited over **9.5 million times**. Our publishing covers content relevant to every goal.

Signed the SDG Publishers Compact and joined the Fellows Initiative to bring this Compact to life.

Launched an **SDG Impact Challenge** across our business to raise awareness of the goals and encourage colleagues to take action to reduce their personal impact on the planet.

Although we have three focus SDGs, we publish content relevant to all of the goals.



SDG spotlights



SDG 4: Quality Education

Following the announcement in March 2022 that girls would no longer be allowed to attend secondary school in Afghanistan, members of our SDG working groups set out our view of the critical nature of girls' education. We continue to use our networks and publications to curate content, facilitate discussions and create resources to amplify the voices of those denied education. Our SDG 4 and SDG 5 content hubs host resources related to gender equity, including the impact of conflict on education, and are both relevant to the ongoing situation in Afghanistan.



SDG 13: Climate Action

We learn from the research we publish, minimising and mitigating emissions and environmental impacts in our operations and supply chain. Examples of our efforts can be found throughout this report, and specifically in the Action on Carbon section.



SDG 17: Partnerships for the Goals

We have sought new partnerships across our business and other sectors to create opportunities to link research and interdisciplinary experts with those making key decisions. We have introduced new content formats and approaches to collaboration, harnessing the power of brands such as *Nature* and *Scientific American*.


* Citation count measured by overton.io

SUSTAINABLE DEVELOPMENT GOALS (SDGS) CONTINUED

Our SDG Programme and content hubs

Springer Nature’s SDG Programme aims to connect researchers with practitioners in policy, business and civil society organisations. We achieve this by making our publishing activities more visible to key communities through a variety of channels, including our dedicated SDG content hubs.

Our **SDG content hubs** were visited more than 178,000 times in 2022.



These 17 content repositories highlight multidisciplinary peer-reviewed research content from across our journals and books, as well as insights, journalism and multimedia in a variety of languages. The hubs are maintained and supported by internal expert networks, who bring together colleagues from across different disciplines and business areas.

Raising internal awareness of the SDGs

In 2022, Springer Nature held its second SDG Impact Festival for employees, coinciding with Global Goals Week when the UN General Assembly focuses on the progress being made towards the SDGs.

Part of the festival included a four-week SDG Impact Challenge, in partnership with UK charity Hubbub. Throughout the challenge, employees discovered simple and impactful actions to contribute to the SDGs, related to the topics of energy, waste, food and fashion. Using a virtual platform, Giki Zero, colleagues estimated their carbon footprint and tracked progress on reducing emissions.




OUR IMPACT:

More than **500 colleagues** worldwide participated in the SDG Impact Challenge.

Through these steps, they committed to saving **4.6 million litres** of water, **11,418 items** of single-use plastic and **54,602 km²** of land.

Colleagues’ commitments led to a saving of **86 tonnes** of CO₂, which was matched by Springer Nature through forestry-based carbon offsets with the Children’s Forest.



OTHER ACTIVITIES:

More than **300 colleagues** joined weekly speaker events to explore our SDG topics, including a live vegan cookalong.

Teammates came together to **take action**: planting 100 tree saplings in Pune, hosting a vegan bake sale in New Delhi, swapping clothes and books in London and Wiesbaden, and organising a beach clean-up in New York.

We also asked colleagues to nominate their **SDG Heroes** – the people at Springer Nature who have shown passion and commitment to supporting the SDGs through their work.



OPEN ACCESS

At Springer Nature, we have been driving the transition to open access (OA) for more than 20 years and believe that gold OA – which gives immediate access to the version of record of peer-reviewed research – is the most viable and sustainable path to open science.

OA at Springer Nature

We are progressing our commitment to improve the speed, reproducibility and efficiency of the entire research process. We aim to help our customers to transition their budgets from funding access to read research towards funding OA publishing through new commercial models, practical approaches, use of technology and the development of suitable policies.

We are the most comprehensive publisher of OA primary research – with more people reading and using the fully OA articles published by Springer Nature than those of our competitors. We have the highest average article citation among all fully OA publishers, and researchers publishing with us see their work downloaded up to five times more than our fully OA peers.

Our aim is that by the end of 2024, at least half of the primary research we publish will be open access.

Transforming access

Since 2014, we have been pioneering transformative agreements (TAs) as a mechanism for accelerating OA globally, and at scale. TAs are centrally negotiated with funding bodies and institutional consortia, and enable authors to publish OA in the vast majority of our journals at no cost to themselves. Discipline-neutral, they are of great benefit to authors active in less well-funded research areas. We now have over 17 national agreements.

In 2022, we:

- Saw greater expansion and uptake of TAs beyond Europe, demonstrating our continued commitment to enable OA – across all regions, disciplines and journals.
- Agreed what was at the time of signing the largest TA in Japan.
- Signed our first TAs in Latin America and Canada.

“We believe that for the general public to understand and have more trust in science, having easy access to research is the first step. We therefore wanted to make sure that everyone can read our work, access and download our data, and study what we did; within a week our paper had been read 32,000 times and almost 80% of our readers belong to the general public!”

Melanie During, an author of the first paper published under the new Swedish transformative agreement agreed in 2022

Via transformative agreements, we support authors from **c3,500 institutions** globally.



IN 2022

We published more than **154,000** OA articles

We celebrated the milestone of **2,000** OA books

48% of our SDG-related journal articles were OA

OPEN ACCESS CONTINUED

Enabling equitable OA

Ensuring the transition to OA is sustainable means finding new ways for publishing costs to be funded. These are usually met either in the form of an individual article processing charge (APC) or within a TA. In lower-income countries and some research disciplines, both of these can be difficult to finance, which is why Springer Nature operates an APC waiver and discount policy.

Our fully OA journals waived fees of almost €20 million to authors in financial need in 2022. This included almost €7 million for articles with corresponding authors based in countries or regions on the World Bank’s list of low- and lower-middle-income countries.

We are also founding partners and active contributors of [Research4Life](#), which offers subscription research content to scholars in these countries for free or at low cost.

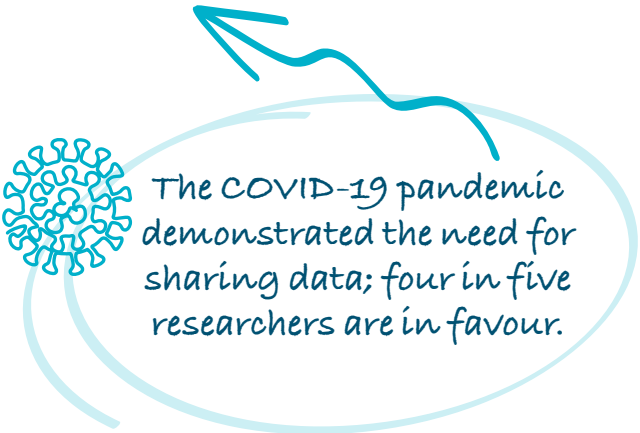
Early sharing and enhanced access

The COVID-19 pandemic demonstrated the potential benefits of making data and research more openly and routinely shareable. The seventh annual [State of Open Data report](#), published by Springer Nature, Digital Science and Figshare, surveyed more than 5,400 respondents and found:

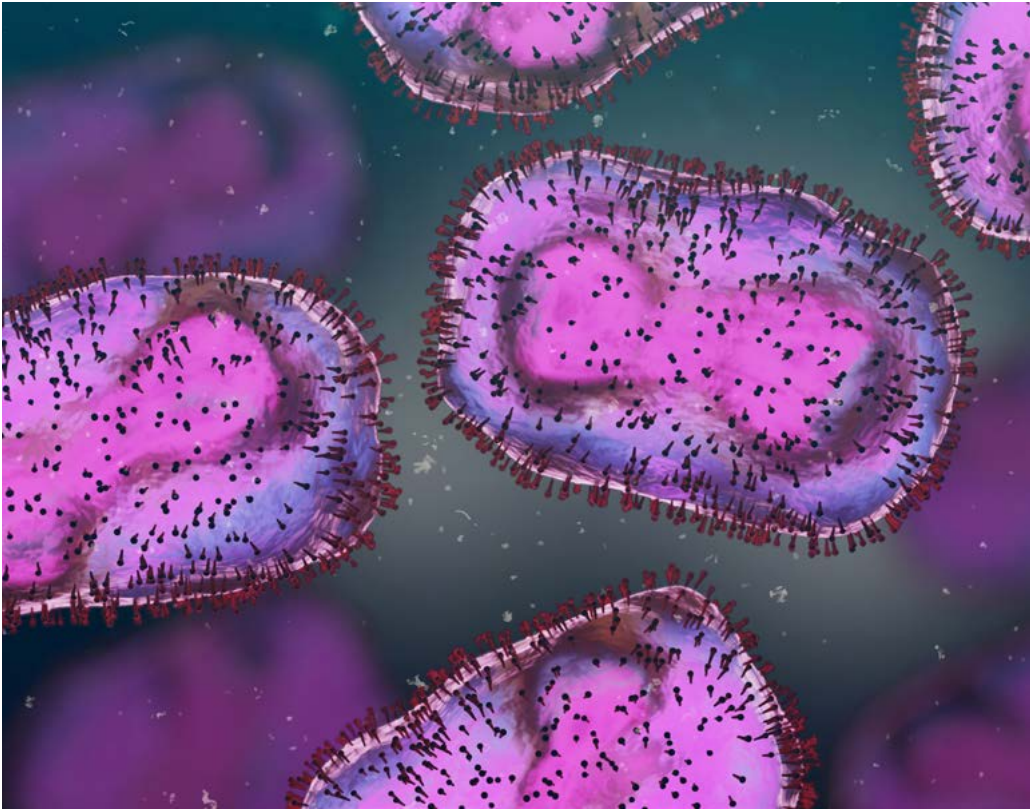
- Four in five researchers are in favour of data being made openly available as common practice – a growing trend.
- Over 70% of researchers are required to follow a policy on data sharing.

- Researchers need more training or information on policies for access, sharing and reuse (55%), as well as long-term storage and data management strategies (52%).
- Credit and recognition remain key themes in the OA conversation.

Following a successful pilot, Springer Nature and Figshare announced a new integrated submission process for our Nature Portfolio titles, to encourage and make it easier for researchers to share data. We have also extended our partnership with [Code Ocean](#) to better integrate code deposition and peer review within the manuscript submission process.



The COVID-19 pandemic demonstrated the need for sharing data; four in five researchers are in favour.



CASE STUDY

Mpox outbreak

Following the WHO’s 2022 declaration of the mpox outbreak (formerly monkeypox) as a Public Health Emergency of International Concern, Springer Nature made related content free to access.

In addition, a dedicated digital [mpox hub](#) – containing relevant and recent research articles, commentary and books – was created to support the global community to access and develop knowledge of the virus.

SCIENCE COMMUNICATION

Springer Nature has an important role to play to combat the rise of misinformation and ensure accurate understanding of the latest scientific discoveries. We do this by publishing peer-reviewed research and disseminating it via high-quality channels and platforms to reach a variety of audiences.

Science journalism

Our journalists and bloggers reach millions of people every month through our:

- Websites – **over 12 million** visits to [Nature.com](#) and [ScientificAmerican.com](#).
- Social media presence – **310,000** follow Springer Nature’s corporate social media channels.

Reaching policymakers and the media

- Our journals and editorial communications team works with research editors and authors to share insights with science journalists and news reporters, and to ensure accurate reporting of scientific discoveries.
- Our sixth annual [Science on the Hill](#) event saw politicians and staffers from the US Congress come together to discuss the latest science and policy around climate-smart agriculture.
- In 2022, the research we published and promoted generated over 152,000 news articles globally.



CASE STUDIES

Science meets popular culture

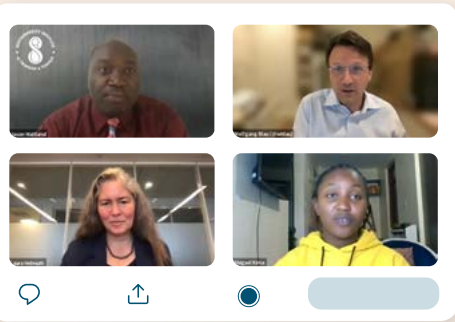
[Science Stories](#) is a series of videos from Springer Nature that go behind the scenes of some of the exciting and inspirational research that we publish. [Lights, Camera, Science](#) is a short film that explores how the convergence of science and entertainment can forge powerful stories that educate, entertain and inspire action.

Conveying the reach and impact of published research on popular culture, it features a collaboration with Netflix’s climate-themed film *Don’t Look Up* and the non-profit organisation ‘Count Us In’ and Disney’s Comics & Science series.

You can [read the story about how science communication was key](#) to getting the research into the hands of these organisations from the researchers themselves.



A still from Netflix’s climate-themed film *Don’t Look Up*, courtesy of Netflix.



Science communications for impact

In 2022, we co-hosted the latest Science for a Sustainable Future event as part of the 10th Annual International Conference on Sustainable Development. Partnering with the UN Sustainable Development Solutions Network, we organised a [scientific communications panel](#) focused on raising scientific literacy and awareness of the SDGs among citizens and policymakers.

The panel of journalists, researchers, influencers and activists was moderated by Laura Helmuth, Editor in Chief of *Scientific American*. Topics included understanding and confronting misinformation when delivering the SDGs, how media and academics can cooperate to increase trust, and the role of journalism in addressing behaviour change in support of the goals.

RESEARCH INTEGRITY

It is essential that the public can trust published research. The Springer Nature Research Integrity Group (SNRIG) works with authors, editors, staff, reviewers and the wider research community to maintain high editorial standards, using the latest artificial intelligence (AI) tools. We are guided by the principles of the Committee on Publication Ethics (COPE) and our Code of Conduct for Editors.

Accuracy and integrity in research

In 2022, SNRIG reviewed more than 1,600 cases (for context, we received 1.5 million journal article submissions in 2022). Frequently reported issues included problems with authorship, data, plagiarism, duplicate submissions and publications, research ethics and research participant consent. Where issues are confirmed, we act by publishing corrections, editors' notes and expressions of concern, or retracting articles.

Our Research and Solutions Policy Management Group and its board works with SNRIG to ensure that policies and practices keep up to date with changes affecting research, including technology developments and ethical concerns. We recognise that this issue is bigger than any one publisher, which is why we played a key part in establishing the [STM Integrity Hub](#), a shared resource to help publishers respond to the increasing amount of materials that violate accepted research integrity.

We are committed to supporting good practice in research integrity at research institutions. In 2022, we published the results of a survey of Australian researchers, in partnership with the Australian Academy of Sciences, which found that while 68% of respondents said their institution currently offers research integrity-related training, only 50% stated it was mandatory. In addition, 73% of researchers felt this kind of training should be mandatory for all those holding a research position. We launched further surveys for researchers based in the UK and the US, in 2022.

Supporting research integrity through policies

In 2022, Nature Portfolio set out steps to [address inclusion and ethics in global research collaborations](#), with a focus on practices such as 'helicopter research' and 'ethics dumping', which can generate

inequities and even exploitation. Inclusion and equity in global collaborations are vital for producing reliable and trusted research. The new approach includes action to raise awareness, create transparency, improve citation diversity and promote inclusive peer review.



Protecting content authorship

It is important that we protect the content that we publish against intellectual property infringement while considering the sensitivities and concerns of the research community and supporting open science. We proactively identify, monitor and act against potential legal infringements, ensuring that threats are identified, targeted, disrupted and, where possible, countered.

We are exploring how to address harm caused by pirate sites with other stakeholders and are helping higher education institutions protect themselves against cybercrime through the Scholarly Networks Security Initiative. [Any concerns about online piracy or physical counterfeiting can be reported to our anti-piracy team.](#)

Inclusion and equity are vital for producing reliable and trusted research.



HARNESSING TECHNOLOGY

From automatically matching papers with peer reviewers to tailored, AI-generated research summaries, technology is threaded throughout our business and is a key factor in driving forward open science and unlocking the power of knowledge faster.

Technology is enabling open science


In 2022, technological platforms and partnerships that enabled the integration of open research practices allowed us to better support researchers, driving forward open science for all.

A deep understanding of our communities means we can deploy advanced technologies, including AI, to improve our products and services.



We develop and share technology and research solutions to build the skills, confidence and careers of researchers to advance discovery, turning research into a reality.

We are also using technology to help institutions move towards open science with new products, such as Nature Research Intelligence, which launched in 2022. This service uses *Nature's* 150 years of research expertise, and AI, to bring information and data to decision-makers, through customised reports into relevant research and metrics to track progress.



From 2019–2021,
we invested
€350 million+ in
products and technology.

CASE STUDIES



Supporting Austrian doctors with digital solutions

In 2022, Springer Medizin acquired Medbee, a leading professional online network for doctors in Austria that provides high-quality specialist communication tools for the healthcare sector. The Medbee app enables data and documents to be individually organised and accessed via smartphones, making it easy to use in clinical practice. It is already used every day by 9,000 clinical professionals in Austria.

Growing our digital archive

We have expanded our partnership with the CLOCKSS digital archive, to help ensure the long-term preservation of all books published since 1815. The partnership will see around 300,000 book titles that are crucially important for the scholarly record kept safe for posterity, such as Albert Einstein's *The Meaning of Relativity*, published in 1922. The archive includes titles in multiple languages and from a range of imprints, including Springer and Palgrave Macmillan.



HARNESSING TECHNOLOGY CONTINUED

Transforming research publishing and communications

We welcomed Harsh Jegadeesan as Chief Solutions Officer in 2022 to support Springer Nature's development of digital solutions and innovative platforms for the research community, a vital part of the transition to open research.



“Science, research and innovation have an impact on every industry, fuelling human and society's progress. We are on a mission to provide the digital platform, tools and services to help researchers across academia, businesses and research institutions to collaborate and create this step change for every industry and society as a whole.”

Harsh Jegadeesan
Chief Solutions Officer,
Springer Nature

We also created a new role of Vice President (VP) Product and Technology for *Scientific American*, one of our key brands. In this position, Dan Benjamin is leading the digital roadmap for the magazine – which is over 175 years old – to grow the brand's customer experience and outreach.



“I am thrilled to join the team and lead its product and technology strategy so we can reach and inform a broader audience across a variety of mediums and platforms.”

Dan Benjamin
VP Product and Technology,
Scientific American

● CASE STUDY

Streamlining access to high-quality life science data

In 2022, we became the first publisher to partner with data company CiteAb to integrate data from our protocols and methods portfolio into the company's search engine. This will help researchers make more informed decisions when planning and carrying out experiments, by aiding the identification of the most appropriate reagents (chemicals used in lab work).

It is estimated that up to \$28 billion is wasted annually on irreproducibility in pre-clinical research – and many problems with experiments can be tied directly to the use of incorrect reagents.

This partnership provides a more comprehensive view of the most commonly used products in their field, enabling researchers to:

- See how and where the reagents are used and to what effect.
- Search for what they need in one place.
- Have access to information on the suppliers of reagents.

These outcomes help save time and money and will support the advancement of scientific research.



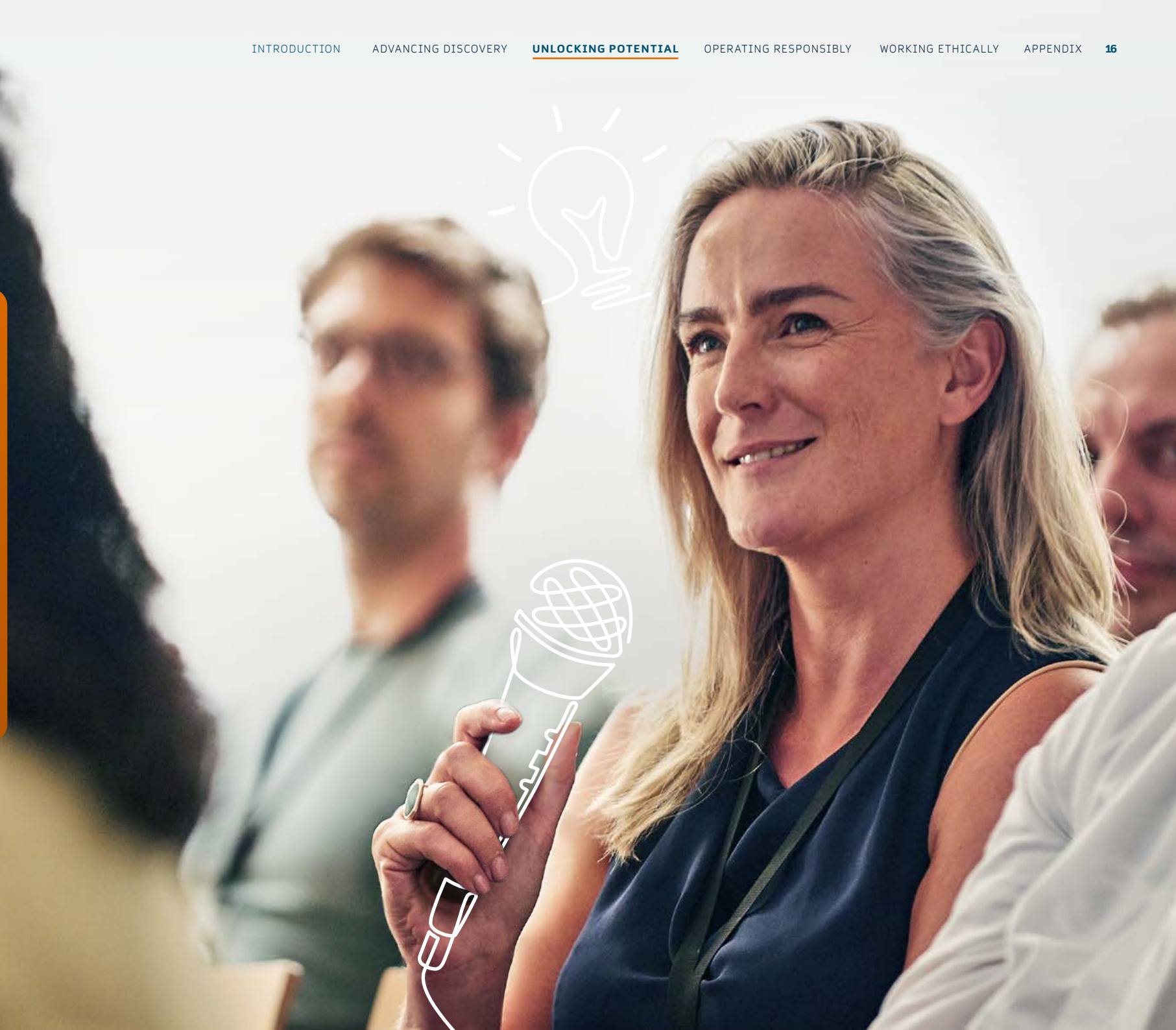
PEOPLE

UNLOCKING POTENTIAL

Around the world, Springer Nature aims to be a great company to work for, living our company values to unlock the potential of our people. We seek to support our colleagues in an inclusive culture, and for them to have the opportunity to learn and develop rewarding careers with us for the long term.

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- 23 Community support



BE PART OF PROGRESS

As a global organisation undertaking challenging and important work, we employ extremely smart and curious people who want to make a difference to the world around them. Our culture thrives on diversity and is friendly and collaborative. We offer an environment where you can be curious, be successful and be yourself.

We have four clear values that our people bring to life through our ways of working.



Partnership
Trust each other and engage to build strong relationships – inviting and respecting different perspectives, working well together and recognising the contributions of all.



Drive
Activate change and accelerate our potential. Be agile and adaptable, open to new ideas, and embrace opportunities to develop and succeed.



Integrity
Deliver on our promises and priorities and inspire through our actions. Be a role model for others – fair, respectful and true to ourselves.



Responsibility
Do the right thing for all our communities and champion diversity, equity and inclusion. Play your part in ensuring we act as a responsible business, driving sustainable progress and recognising the ideas and opinions of all.

Our Code of Conduct sets out our expectation that all employees are treated fairly and respectfully (see page 32).

Building a great place to work

As a global and progressive business, we want to create a culture and working environment that enables people to perform at their best. There are six key elements in the people and planet area of group strategy:

Culture	Continue to drive colleague engagement and build an inspiring, inclusive and shared company culture.
Working practices	Shape our future working practices.
Talent	Ensure that our colleagues are equipped to continuously drive business success.
Diversity, equity and inclusion	Build an organisation where everyone can contribute at their best and thrive.
Processes	Improve the employee experience of all HR services.
Sustainable business	Deliver on our commitment to be recognised as a purpose-driven company.

Setting out our approach as an employer

Over the next 10 years, we are on a mission to open up the worlds of science, research, education and healthcare and we want the most talented people to join us as we do so. In order to attract, recruit and retain these people, in 2022 we developed a new, global employer proposition to help us articulate who we are and what we aspire to do. We want those who are embarking on a career with us, and those who have been part of Springer Nature for some time, to be clear what we stand for and what they can expect as an employee.

Working with Springer Nature means being a part of progress and making a real impact on society. In return, we offer a place to work that enables colleagues to be curious and challenge themselves in a collaborative environment that prioritises employee wellbeing, flexibility, opportunity and inclusion. In order to deliver a workplace that offers these things, we have listened to our colleagues, collecting feedback from employee engagement surveys and through employee forums. We have created a fully hybrid working environment, offer flexible working options and launched an innovative new workation programme.



Our workation programme
Workations allow staff at Springer Nature to work remotely from another location and combine it with a holiday, or an extended visit to see friends and family. The aim of this programme is to allow our colleagues to unwind, experience diverse cultures and meet new people, without having to use all of their annual leave to do so.

In 2022, we hired and onboarded nearly **2,000 new colleagues**.

EMPLOYEE WELLBEING AND ENGAGEMENT

Our global health and safety policy guides how we manage both mental and physical health risks at all our sites. Our buildings are primarily offices, so ergonomics and wellbeing are key concerns.

We keep these risks as low as we can, with mandatory annual training for colleagues, a health and safety management system to record incidents, and regular reporting to senior management to consider trends or actions to avoid a recurrence. In 2022, the accident frequency rate in the locations where it is reported was 0.47 per million hours worked.

We strive to support our colleagues' wellbeing and to raise awareness of the impact of good mental health, with wellbeing guidance and resources available to all. In 2022, we purchased 700 licences for the application Calm and our colleagues completed almost 2,000 hours of wellbeing-related training.

Our global employee assistance programme offers short-term counselling as well as information and resources on emotional, financial, legal and work-life issues. The confidential and free-to-use service is available 24/7 for employees and their immediate family members.

Engaging our people

In 2022, 76% of employees took part in our annual employee engagement survey, an increase on 2021 (69%), and 13,000 comments helped to put the results into context. The score for the main engagement question, "How happy are you working at Springer Nature?", increased by two points to 73. Every year, the executive team and line managers review the feedback and use it to develop action plans to address key issues. Based on 2022 feedback, 2023 will see a global focus on identifying career opportunities.

In 2022, with support from the SN Women UK network, Springer Nature signed the **Menopause Workplace Pledge** and launched a UK Menopause Guide.

Training and development

In recent years, we have evolved our values and ways of working in line with our updated mission and increased investment into our online learning portfolio to focus strongly on virtual learning, available to colleagues from all parts of the business.

We have implemented a global annual performance review process in which managers and employees discuss priorities, workload and wellbeing.

All employees have an annual recommended five days for training and development activities, including online and in-person courses, job shadowing and mentoring, as well as our annual mandatory values and conduct training. Training opportunities include our employee-generated learning programme, which empowers colleagues to create their own specialist training. More than 60,000 hours were dedicated to employee training in 2022.

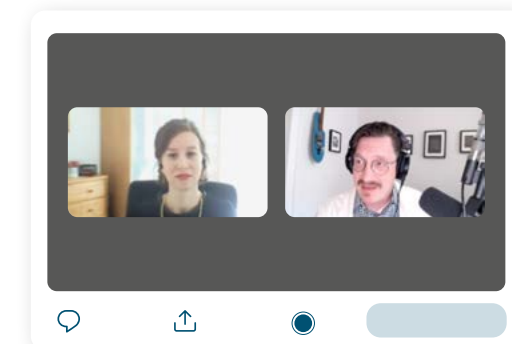


Colleagues in Springer Nature's London office.

Accessible learning

To ensure our virtual training events are accessible to all colleagues, Springer Nature's Talent and Performance colleagues, DEI team and SN D&N network (the employee network for colleagues with a disability or neurodiversity) have created accessibility guidelines for colleagues and external partners leading and creating virtual training.

Watch a [video with the course creators](#) reflecting on the lessons learnt from creating an accessible e-learning course.



DIVERSITY, EQUITY AND INCLUSION

Springer Nature is deeply committed to diversity, equity and inclusion (DEI) within our organisation, in our content and in our communities.

Building an inclusive culture

Looking inward, we are working to build an inclusive culture with a more diverse workforce and equitable structures that enable all our colleagues to thrive.

In 2021, we widened the perspective and scope of our DEI activities, increasing our focus on anti-racism and representation across the company. Building on this and using learning from our annual global inclusion and diversity survey, in 2022 we set a new global representation goal for race and ethnicity in senior leadership roles, as well as specific goals for the US and UK.

We continue to use our survey results to inform our actions. For example, in 2022, over 70 mentor and mentee pairs took part in our DEI mentoring programme as part of our learning and development efforts. This initiative is targeted at groups who are underrepresented in leadership or experience lower levels of inclusion, according to our survey. The mentees, who self-identified as people of colour, LGBTQ+, disabled or neurodivergent, worked with

their mentors throughout the year, with a focus on professional development and growing their internal network.

In addition to targeted training, we have launched new DEI-focused values and conduct training, and are building a DEI Learning Journey Curriculum.

Gender representation continues to be an important component of our DEI approach.

Awarded Diversity Team of the Year at the British Diversity Awards.



The Springer Nature team at the British Diversity Awards.

In 2018, we set a target that 45% of our top three tiers of leadership should be women by the end of 2023, rising from a 2019 baseline of 39%. At the end of 2022, the figure was 41% – the same figure reported in 2021[†]. Since 2019, quarterly tracking has shown that the gender split for the cohort of around 275 people has fluctuated between 40% and 45%. The figure is impacted by people joining and leaving the company, as well as by reorganisations and changes in reporting lines.

To reflect our representation goals for race, ethnicity and gender, we will increase our focus on equitable recruiting, promotion and succession.

Employee networks

Our eight employee networks, who between them have more than 1,400 members, bring together colleagues who share an identity or are working towards a common goal.

Employee networks in 2022

8 employee networks, including a new Jewish Employees Network

1,400+ members

124 network and DEI events, and 176 internal blog posts

35 local chapters, including 5 new chapters in 2022

5 new chapters of the Green Office Network



[†] Data in this statement reviewed by auditors, see audit statement on [page 35](#).

DIVERSITY, EQUITY AND INCLUSION CONTINUED

● CASE STUDIES

Listening to our people: inclusion and diversity survey

Springer Nature held its second global inclusion and diversity survey in 2022, with the aim of learning how employees feel about inclusion and to help us create a more inclusive workplace.

For Springer Nature as a whole, inclusion question scores – which were already high and at or above the benchmark – have either improved slightly or remained stable since last year.

We have used the results of the survey to design five key initiatives to continue to increase inclusion.

Key initiative

Action we’ve committed to

Enable all employees to behave inclusively in their circles of influence

Launch a long-term learning experience that supports all colleagues’ understanding and implementation of inclusive behaviours.

Celebrate employee networks and network organisers

Increase structural support for people involved in employee networks.

Enable everyone to hire inclusively and reach out to more diverse hiring pools

Review current hiring processes, expand inclusive hiring practices across the company, including by using diversity-focused job boards, and relaunch the DEI Recruiting Checklist.

Use benchmarking tools to assess our inclusion of specific groups

Assess inclusion of marginalised populations, and guide future actions and initiatives.

Monitor progress towards our goals

Review key metrics and performance indicators, sharing quarterly progress updates internally.



Generation Valuable

Springer Nature is one of 75 companies taking part in a brand new programme from Valuable 500 to develop the next generation of leaders with disabilities: [Generation Valuable](#). The initiative pairs a mentee with a disability with an executive team mentor to gain insights into senior leadership, and to equip them with the knowledge, access and tools needed to facilitate professional growth. Mentees are also invited to share their experience of disability with members of the executive team, to further drive disability inclusion.

“As the Generation Valuable mentee, I’ll be helping to promote accessibility and inclusion as an opportunity for innovation. Embedding that mindset into our culture, and focusing on progress before perfection, is already resulting in really positive outcomes, and I’m looking forward to working with Carolyn to build on that.”

Jude Robinson, Global Head of Front End Development and Generation Valuable mentee. In 2023, Jude will be mentored by our Chief Commercial Officer, Carolyn Honour.

DIVERSITY, EQUITY AND INCLUSION CONTINUED

Influencing positive change

We have developed an external DEI strategy to ensure we serve our customers and communities in a fair and inclusive way. We work to eliminate barriers to creating, discovering and using knowledge, and support equitable outcomes in learning and advancing scholarship – from young learners to PhD level and beyond.

In 2022, Springer Nature introduced new frameworks to enable editors and editorial boards to recruit more diverse peer reviewers and editorial board members. We also commissioned research to understand how researchers perceive and experience DEI in the research community.

In 2022, the books division completed a thorough audit of how, who and what they publish in the context of DEI.

The DEI taskforce then worked to create and contribute to a range of training and resources for in-house editors and external book authors and editors, including implicit bias training and an 'Intentional Content' resource.



● CASE STUDIES

Making our products and services more accessible

We continue to improve the accessibility of our products and services for our customers and communities. The customer services team has appointed its first accessibility champion, to advocate for accessibility and inclusion for our disabled customers and to connect colleagues with practical and strategic solutions. We have also created procurement guidelines for accessible purchasing, and [a practical guide for librarians](#) on assessing vendors' claims about product accessibility.

Following accessibility training, the Nature Masterclasses Online team has embarked on a major project to improve the quality of our eLearning content, while multiple projects inside the books division aim to improve access to our eBooks products. A large-scale review of the accessibility of our marketing content is also underway.



Nature's first conference on diversity in research

Nature held its [first diversity conference](#) to highlight the role of research in achieving gender equity, and to create new opportunities for networking and mentoring. The conference, 'Breaking Barriers for Gender Equity through Research', aligned with the theme of [International Women's Day 2022](#),

'Breaking the Bias', and involved 1,670 participants. A mentorship session at the event involved 150 participants.

The event was organised by Springer Nature's SDG 5 working group – a cross-business forum of colleagues working to amplify SDG 5 through events and content collation – with support from Nature, Nature Africa, Nature Middle East, Nature India, Scientific American and the SN Women employee network.

DIVERSITY, EQUITY AND INCLUSION CONTINUED

DEI in our publishing content

We interact with millions of people every day through our research, health, education and professional publishing businesses. We connect with them as authors, as peer reviewers, as editors of our journals, as readers, as teachers and as users of our platforms. This means that we have the opportunity to influence behaviour on a large scale and effect real change.



● CASE STUDIES

Nature’s guest editorial on racism in science

Shortly after the tragic murder of George Floyd in 2020, *Nature* committed to producing a special issue on racism in science under the guidance of guest editors for the first time in the journal’s history. Released in October 2022, the special issue entitled ‘Racism: Overcoming science’s toxic legacy’ included an editorial on why science needs to reckon with its history of racism.

One of the guest editors, political scientist and MIT’s Chancellor Melissa Nobles, said of the project: “It was a great opportunity for us to come together in a collective voice and share our different expertise, but also work with such a skilled and informed team as that of *Nature*.”



Image courtesy of Massachusetts Institute of Technology (MIT)

The power of education

Macmillan Education launched *Advancing Futures* in 2022, a comprehensive educational programme designed to introduce the topics of global citizenship, sustainability and DEI into classrooms



around the world. *Advancing Futures* is an integral part of how Macmillan Education is delivering its 180-year-old ambition: to support teachers to inspire the next generation and to use the power of education to have a positive impact on society.



Renaming 21 titles to become gender neutral

Springer Nature changed the name of 21 journals in the Springer Medizin imprint to become more clearly inclusive. The titles had been named after the profession to which their content was targeted. Historically in German, this would be the masculine form, as it is generically used to mean ‘all’. The titles now focus on the specialist field they are publishing research in. For example, *Der Chirurg* (*The Surgeon*) has become *Die Chirurgie* (*Surgery*). The content and thematic focus of each title have remained unchanged.

COMMUNITY SUPPORT

We partner with others who contribute positively to the research, health, education and professional communities that we work with, and make donations to causes that align with our aims.

The Ukraine invasion: our response

When the Russian invasion of Ukraine began in February 2022, our immediate response was to look at ways we could support our small number of colleagues based in Kyiv and Kharkov financially, practically and emotionally.

Our colleagues collaborated internationally to help those affected. The team at Macmillan Poland coordinated with colleagues in Spain to organise donations of non-perishable food and hygiene products,

sending 52 boxes of items to be distributed among Ukrainian refugees. They also delivered free books for Ukrainian students and designed infographics in multiple languages covering basic vocabulary and ‘the language of emotions’ to be used in schools.



We worked with the [Philip Schwartz Initiative](#) to set up a dedicated emergency fund for researchers who had fled to Germany from Ukraine. The fund is intended to meet housing and living costs for up to six months. Springer Nature donated an initial €250,000 to the foundation to kick-start this programme. The emergency fund has since reached a total of €1.25 million and made grants available for 35 scholars and their families.

To support refugees, in particular children and healthcare workers in and around Ukraine, we donated a further €300,000. The [Julius Springer Fund](#) donated €50,000 to the Berliner Stadtmission, to provide on-the-ground support to the many refugees arriving in Berlin.

Supporting charitable causes

In 2022, we revised our approach to donations, to amplify our impact and continue to address societal challenges and support our communities. The new framework includes strategic donations reviewed by our global charity committee, and the funds allocated for causes chosen by employee groups.

Through our contributions, we aim to:

- Enable access to equitable quality education and science.
- Align with our commitment to the SDGs.
- Champion DEI in our communities.
- Work with causes that are of interest and value to our colleagues, editors, authors, customers and other partners we work with.

All donations align with one of three pillars: discover, learn, achieve.

Discover

Improve understanding of, and protect trust in, scientific research among the general public, against the backdrop of misinformation.

Learn

Excite and inspire children and young people to develop the curiosity and skills to engage with science, technology and sustainability.

Achieve

Advance discoveries by enabling students and early career researchers to deepen their research and professional skills and open up new opportunities for collaboration.

In 2022, we gave approximately €1.35 million in donations and sponsorship to charities and organisations that share our values.

CASE STUDY



Donation to MQ Mental Health Research

The pandemic brought into sharp focus the importance of mental health – this led us to make a donation to [MQ Mental Health Research](#).

MQ invests in multidisciplinary scientific research to create a future where mental illnesses are understood, effectively treated and one day prevented. The donation is supporting MQ’s data science programme, funding data science meetings and workshops for early career researchers in 2022 and 2023, with a total of 200 attendees.

“By supporting MQ’s data science programme, we hope to help build a diverse and influential community that will ultimately enable major improvements in mental health care and treatment and improve the lives of many in the years to come.”

Sir Philip Campbell
Editor in Chief, Springer Nature

PLANET

OPERATING RESPONSIBLY

Springer Nature is committed to achieving net zero carbon emissions through our value chain, and is setting science-based targets on carbon. We are working with partners to reduce the impact of our operations and to inspire further climate action through the work we publish.

In this section

- 25 Publishing climate solutions
- 26 Our approach to carbon
- 29 Action on carbon



PUBLISHING CLIMATE SOLUTIONS

Publishing trusted, peer-reviewed climate research, and enabling it to reach the decision-makers who need it, is the greatest action we can take to tackle climate change.

Over 60 articles published by Springer Nature were cited in the recent [United Nations Environment Programme \(UNEP\) Emissions Gap Report](#).

Springer Nature has shared **over 60,000 climate research journal articles** and book chapters since 2015.

● CASE STUDIES

Climate Research in Action

We know real climate action is driven by research – inspiring and guiding both policy and behaviour change – yet we need to bridge the gap between the evidence and impactful action. Our [Climate Research in Action](#) campaign amplifies research that can help us tackle the climate emergency. Launched in 2021, it was updated to coincide with key events in 2022, including:

- Publication of the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report.
- UK art and literature event, Hay Festival, where *Nature* sponsored a series of sessions on sustainability, showcasing science communicators.
- COP27 climate conference, for which we featured a new research collection from *Nature Human Behaviour* and *Nature Climate Change*.



Credit: elenabs/iStock/Getty Images Plus/Getty; Irina_Strelnikova/iStock/Getty Images Plus/Getty; Mykyta Dolmatov/iStock/Getty Images Plus/Getty; Rudzhan Nagiev/iStock/Getty Images Plus/Getty; artpartner-images/The Image Bank/Getty. Banner design: Valentina Monaco and Bethany Vukomanovic.

Open access climate journal

Climate change can only be solved collaboratively. The more we exchange information, the greater the chances of navigating the intricacies of climate change and its governance.

In 2022, [Climate Action](#) published its first articles. This new OA journal sits between humanities, social sciences, earth and environmental studies, so the solutions published are cross-disciplinary, just like climate change. The journal plants 10 trees for every review completed.



Learning from Crises

What can we learn from the COVID-19 pandemic that can guide our climate action? In 2022, Springer Nature and the UN Sustainable Development Solutions Network (SDSN) published a white paper, titled [Learning from Crises](#), as a follow-on from a virtual event that took place alongside COP26 in 2021. The paper explores the clear parallels between the pandemic and the climate crisis, and the critical importance of an interdisciplinary approach to motivate behaviour change, tackle misinformation and address inequality in times of crises with an emphasis on addressing the climate emergency.



OUR APPROACH TO CARBON

Springer Nature has been carbon neutral since 2020 and we are now setting out science-based targets with an aim to be net zero carbon by 2040. We will focus on emissions reductions over the next 10 years.

Net zero ambition

Springer Nature is carbon neutral for our buildings, fleet and flights (scopes 1, 2 and partial scope 3) because we have increased the use of renewable electricity, improved office energy efficiency and purchased carbon offsets for residual emissions. To further our emissions reduction progress, we are committing to targets which include our supply chain (scope 3). In 2022, we developed science-based net zero targets in line with the collective action needed to limit global temperature increases to 1.5°C, as set out in the Paris Agreement.

We aim to be net zero by 2040, accounting for emissions across our wider value chain, including purchased goods and services.

As part of the Science Based Targets initiative (SBTi) Business Ambition for 1.5°C framework, we will pursue rapid emissions reductions over a 10-year timeframe, as well as absolute emissions reductions of 90% by 2040 across all scopes. These targets will be reviewed by the SBTi in 2023 and communicated once validated.

Climate-related risks

We consider the risks related to climate change within our overall risk management processes, including physical risks to our operations and those of critical suppliers, and transition risks such as the impact of regulatory and market factors.

We have business continuity processes in place. In 2022, we held a planning exercise to assess resilience to potential energy outages in Europe.

Our net zero roadmap is a core component of our climate response, and we will report annually on progress. Our publishing activities contribute to the better understanding of climate risk, mitigation and adaptation. In future, we intend to report in line with the Task Force on Climate-related Financial Disclosures (TCFD).

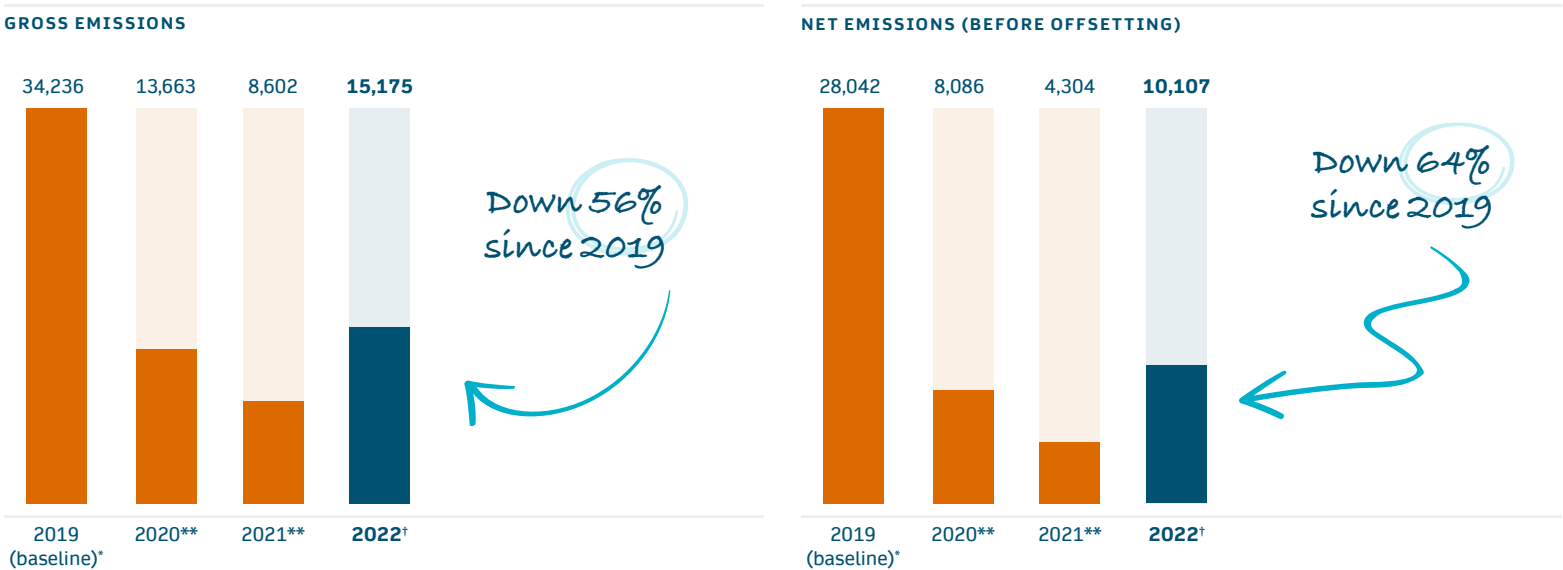
Direct emissions

In line with our previous reports, we share our direct emissions and emissions from flights and leased spaces (scopes 1, 2 and partial scope 3) in three ways: gross emissions; net carbon emissions before offsetting; and our net carbon emissions after the purchase of carbon offsets.

Renewable energy

In 2022, 95% of the electricity we purchased was renewable, and was purchased either via our suppliers or as renewable electricity certificates (RECs). We prioritise purchasing renewable electricity directly from our suppliers, and where that is not practical, we purchase RECs. We purchased carbon offsets for a small number of sites where it was impractical to buy RECs (see page 28).

Total greenhouse gas emissions (tonnes of CO₂ equivalent, tCO₂e)



* 2019 baseline excludes data from SPS business (divested in December 2019). Data has been restated.
** Data reviewed by auditors in previous years.
† Data reviewed by auditors, see audit statement on page 35.

OUR APPROACH TO CARBON CONTINUED

Building energy use

Compared with 2021, our buildings’ total energy use decreased by 4.6% overall as we rationalised office space and experienced a milder winter in Europe. This was despite energy use increasing in many locations as people returned to the office. Our data for 2022 shows ongoing impacts of the COVID-19 pandemic, combined with reduced emissions due to office consolidation and lower office occupancy compared to before the pandemic. Some offices, including in China, saw ongoing restrictions due to COVID-19. We expect that we may see some further rises in energy use in 2023 as our offices reach higher occupancy levels.

Further reductions in scope 1 and 2 energy use are expected to come from changes in our office portfolio and an ongoing focus on energy efficiency. Our London and Wiesbaden offices are receiving tailored energy advice in consultation with local authorities, with the aim to reduce energy consumption.

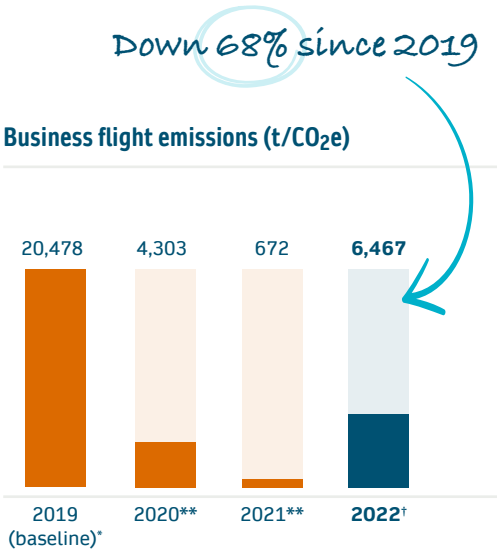
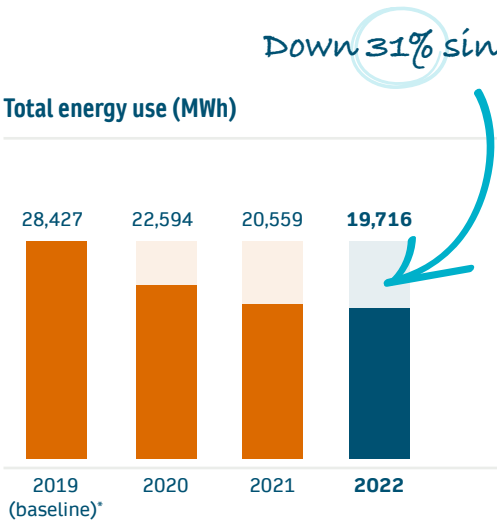
Fluorinated gases (F gases) are coolants that can have high global warming potential if they leak. F gases are covered by international legislation requiring the phase-out of the most polluting types. We took action in 2022 and changed the air conditioning systems in all three of our warehouses in India. Previously, we were using R22. We changed to R32, which has a lower global warming potential.

Business travel

Compared to pre-pandemic levels, business flight emissions remain low. We anticipate that travel will increase in 2023 and are taking steps to monitor and limit this trend, in line with our Environment Policy. Efforts include working with staff and line managers to ensure travel is only undertaken where there is a clear business purpose.

Mapping our value chain emissions

Tackling supply chain emissions is a vital part of our net zero journey, in line with SBTi guidance. In 2022, to further

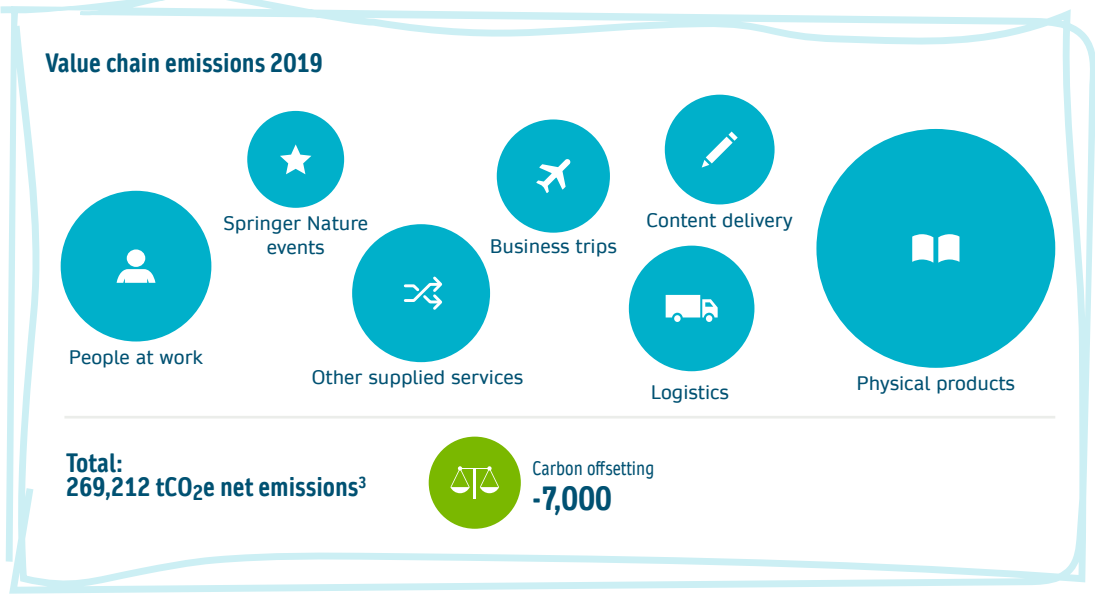


understand our carbon footprint, we mapped our full value chain emissions (including scope 3) for the years 2019–2021. Our baseline year, against which our net zero progress will be measured, is 2019. We will share our full 2019–2022 scope 3 data on our website once 2022 data has been finalised.

Emissions from our suppliers and wider value chain (scope 3) made up more than 97% of our total carbon footprint in the years 2019–2021. We spoke to 10 key suppliers about the need to measure and reduce their carbon footprint,

sending a signal about the importance of decarbonisation. You can see a breakdown of our value chain emissions from 2019 below.

Physical products and the associated logistics made up around 50% of our net carbon emissions in 2019–2022 due to the carbon-intensive nature of materials, manufacturing and logistics. The print-to-digital transition, already well underway at Springer Nature, will contribute to reducing this carbon footprint. We are reviewing our supply chain to minimise product and logistics emissions where we can.



* 2019 baseline excludes data from SPS business (divested in December 2019). Data has been restated.
** Data reviewed by auditors in previous years.
† Data reviewed by auditors, see audit statement on page 35.
3 We have assigned all our emissions to a focus area, and the relative sizes of the circles used in this visualisation are based on actual emissions data. The examples given in the description of each focus area are not exhaustive. We comprehensively report our emissions within our Sustainable Business reports. In 2019, we offset a proportion of emissions from our offices, fleet and flights.

OUR APPROACH TO CARBON CONTINUED

Carbon offsetting

In 2022, our net emissions (before offsetting) were 10,107 tCO₂e from our buildings, fleets and flights (scopes 1, 2 and partial scope 3)[†]. We purchased certificates equivalent to our emissions from buildings, fleet, flights, home working and commuting in 2022. This is the first year we have offset our estimated emissions from home working and commuting.

We have chosen to offset emissions through carefully selected forestry projects, because supporting biodiverse woodland reflects our approach to using only responsibly sourced forestry products in our supply chain. We continue to support CommuniTree, a project in Nicaragua that is certified by [Plan Vivo](#).

The project enables farmers to reforest land with native trees in ways that build their capacity to earn money from their well-maintained forest. This is our fourth year of supporting CommuniTree, and we are proud that our ongoing engagement provides stability to local communities.

We review best practices for offsetting purchases. Our current approach was developed with input from our Environment Committee and internal experts in climate science.



CommuniTree, C Level

Engaging our suppliers

In 2022, we discussed our commitment to reduce supply chain emissions with 10 key printing and binding suppliers. We plan to expand this pilot in 2023. Environmental responsibility is covered in our [Business Partner Code of Conduct](#), which sets the expectations for suppliers to work to improve their impact on the environment and promote responsibility in their own supply chains.



CASE STUDY

Smarter supply chain for Macmillan Education

Previously, physical products for Macmillan Education were sourced, mostly from Asia, and shipped to our UK warehouse for storage and onward distribution. We transitioned this supply chain to a more resilient regional print model with local logistics hubs. This has reduced dependency on single suppliers, improved customer service and decreased warehousing and logistics costs and emissions.

[†] Data reviewed by auditors, see audit statement on [page 35](#).

ACTION ON CARBON

Our short-term carbon targets guide our efforts to reduce our climate impact.

Reporting on progress

In our [2021 Sustainable Business Report](#), we shared our six short-term carbon targets, designed to start addressing emissions quickly. In 2022, we made progress on all of these targets. We expect our decarbonisation roadmap to continue to evolve over time.

AREA	TARGETS	PROGRESS AND NEXT STEPS	STATUS
Net zero	Set science-based targets against a 2019 baseline, covering at least 95% of our scopes 1 and 2 emissions and two-thirds of our scope 3 emissions in 2022.	Submitted our science-based targets to the SBTi. Targets are scheduled for review in 2023.	<div><div></div><div></div><div></div></div>
People	Roll out introductory sustainable business training to all employees via a three-year programme starting in 2022.	Launched four Sustainable Business training modules with a 95% completion rate . The programme will run until 2025, and we are planning an additional Environment module.	<div><div></div><div></div><div></div></div>
Offices	Set up Green Building Checklists and action plans for major sites in 2022, and review half-yearly 2022–2025.	All 18 major sites completed the Green Building Checklist. These include action plans comprising 43 identified potential actions across all 18 sites. We review every 6 months.	<div><div></div><div></div><div></div></div>
	Implement space-saving strategies across our global office portfolio and measure associated carbon reductions.	Reduced office space in 7 locations partly in response to increased remote working. The implementation of space-saving strategies is ongoing. We will measure the impact of this reduction.	<div><div></div><div></div><div></div></div>
Products	Inform end-of-life recycling by labelling new titles in our printed books and journals portfolio by 2025.	We have identified key stakeholders and are building action plans.	<div><div></div><div></div><div></div></div>
IT	Transition from data centres to carbon-neutral and energy-efficient cloud-based suppliers wherever possible by 2025.	We are completing a list of applications that could be moved from our data centres to the cloud, in consultation with internal stakeholders, and we will now form a dedicated migration team. We are continuing to turn off on-site infrastructure that is no longer required.	<div><div></div><div></div><div></div></div>
Suppliers	Actively engage 50% of print and 50% of pre-press suppliers (by spend) to align on our sustainability targets by 2022.	Developed and delivered our supplier sustainability pilot, covering over 50% of print and pre-press suppliers by spend. We spoke to all suppliers about our net zero commitments across our supply chain.	<div><div></div><div></div><div></div></div>

REDUCING OUR IMPACT ON NATURE

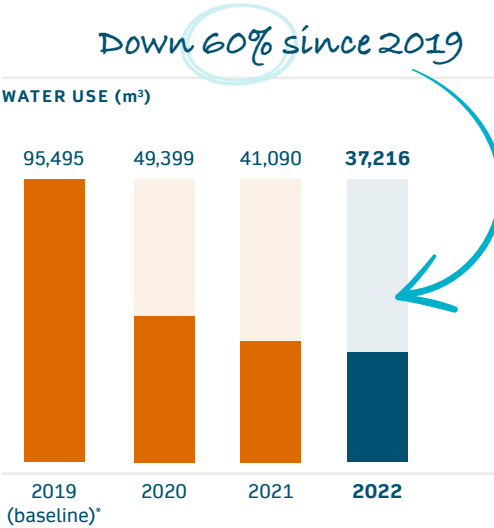
We consider the impact of Springer Nature’s operations on the natural environment and manage our resource use to minimise negative impacts, as well as supporting projects that have co-benefits for biodiversity.

Our approach

Our global Environment Policy sets out expectations of how we manage the company’s most material environmental impacts, including carbon emissions. The policy applies to all colleagues and brings together a range of practical guidance on areas including office paper, water, F gases, waste and electronic waste. Our largest offices are asked to report key metrics each year.

Resource use

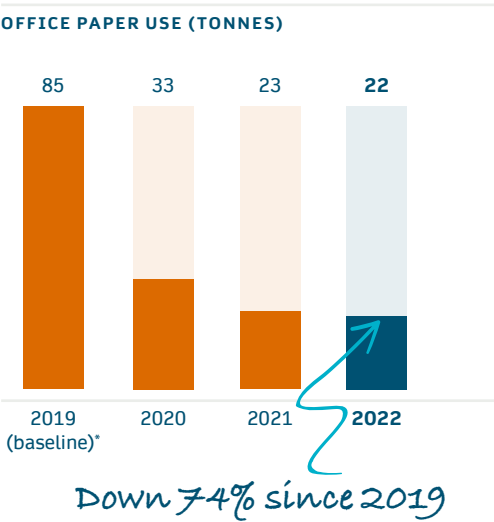
Our offices are using less water and office paper and producing less waste than before the pandemic, due to an increase in hybrid working. Office waste increases were partly due to post-pandemic office changes and refurbishments. Our ongoing transition to e-invoices has now reached 11 countries, and further reduces our paper use. Our IT recycling guidelines set out how we handle IT equipment that is no longer usable. We continue to phase out plastic packaging where possible.



Printed products

Many of our new products are provided in digital only format. Our printed products required 29,961 tonnes of paper in 2022, an increase of 22.7% since 2019.

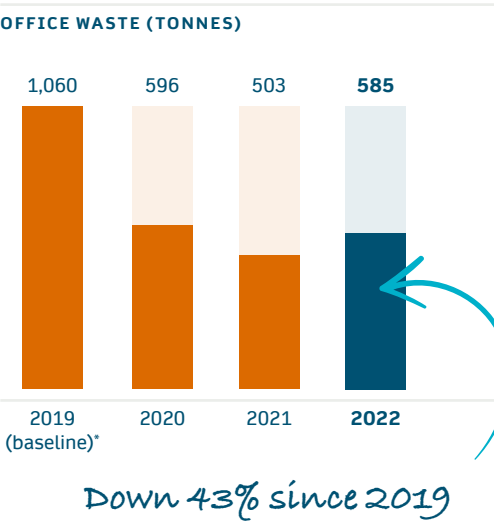
We continue to reduce overprinting and logistics emissions by increasing our use of print on-demand services. Our products are all produced by third-party suppliers. We explored optimising our supply chain to make stock movement more efficient (see [page 29](#)).



Sustainable paper sourcing

Our [paper policy](#) requires that only paper from known, legal and responsible sources is used in our products. Papers must be graded three or five stars in the Publishers’ Database for Responsible Environmental Paper Sourcing (PREPS) or certified by one of the Programme for the Endorsement of Forest Certification, Sustainable Forestry Initiative or the Forest Stewardship Council standards.

We collate data from our largest printers and from other sources to determine compliance with the paper policy. In 2022, compliance was 92%, a fall from 98% in 2021. The largest volume of papers that



were uncertified related to a single order and we are working with vendors to have this paper graded by PREPS in 2023. We have revised guidance around our paper policy and the exception process to be followed where evidence of compliance is not available.

Green Office Network

Springer Nature’s global Green Office Network is an employee-run group for colleagues to share their passion for sustainability and take action with around 140 members, from 25 locations. In 2022, we ran external climate science awareness training for 30 members.

In 2022, we became [Count Us In Employee Challenge Pioneers](#), to accelerate our organisational net zero and sustainability plans by harnessing employee energy.

*2019 baseline excludes data from SPS business (divested in December 2019).

GOVERNANCE

WORKING ETHICALLY

Our work is guided by codes of conduct for employees, business partners and editors, and is supported by group policies and procedures. These give us the frameworks we need to uphold our values and implement our sustainable business priorities, within the organisation and through every part of our supply chain.

In this section

32 Governance, risk and compliance



GOVERNANCE, RISK AND COMPLIANCE

Supported by guidelines and frameworks, integrity is a key value for Springer Nature.

Approaching compliance risks and critical concerns

Governance is a key component of our approach to managing ESG impacts. Led by our Chief Risk and Compliance Officer, our governance risk and compliance team are responsible for group risk reporting. They also design and operate our group-wide compliance system.

This system is designed to identify and proactively address relevant legal and regulatory risks and other issues covered in our [Code of Conduct](#). We design policies to meet these risks, train all staff on the expectations set out in the code and group policies, and detect issues through compliance reviews and monitoring. We have a global [Speak Up system](#) for issue escalation and investigation.



The implementation of group policies and procedures is the responsibility of functional, divisional and regional management. Our business leaders are supported in this by a network of senior managers, including legal, HR, IT and finance teams.

The executive team and audit committee receive quarterly risk reports and biannual compliance updates, including the reporting of significant compliance incidents, if any.

Critical concerns

We seek to identify any new risks and material changes to our risk profile on a quarterly basis. We consider the major risks and uncertainties that could affect Springer Nature, as well as the possible relationships and interdependencies. We also track 12 principal risk areas (€1–5 million or equivalent) and eight emerging risk areas (risks that may impact in future years). In 2022, we reported on 27 significant risk areas (>€5 million or equivalent) in 14 risk categories.

All our operational locations are covered by internal risk assessments. The governance risk and compliance and internal audit teams undertake internal reviews of our operations, and we work with external auditors to audit our supply chain. In 2022, we restarted on-site visits for internal audits.

Our internal audit reviews contain questions about ESG issues – including local governance and DEI – enabling us to track implementation of policy progress and identify areas for improvement.

Code of Conduct and training

Our Code of Conduct for employees sets out our expectation that all employees are treated fairly and respectfully. All staff must affirm their commitment to this code annually. In addition, all employees are required to complete annual values and conduct training. From 2022 to 2024, the overarching theme for this training is sustainable business. The programme incorporates training on ESG topics connected with the Code of Conduct and Business Partner Code of Conduct.

In 2022, the completion rate for values and conduct training was 95%. The new modules include:

- Managing personal interests
- Corruption and economic crime
- Privacy and information security
- Fair competition
- Supply chain management
- Creating an inclusive workplace
- Speak Up whistleblowing system

In 2023, we will roll out further new modules, including one on the environment.

We follow the UN Global Compact, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, and the standards issued by the International Labour Organization, and we expect our business partners to do the same.

GOVERNANCE, RISK AND COMPLIANCE CONTINUED

Anti-bribery, fraud and corruption

We operate a zero-tolerance policy for any corruption involving our employees or supply chain and recognise our role in ensuring that the funds committed to projects are not diverted or misused.

A full, stand-alone anti-bribery, fraud and corruption (ABFC) risk assessment of the whole of Springer Nature Group was last carried out in 2021. This resulted in the adoption of a group-wide ABFC policy. Overall implementation of controls to achieve compliance with the requirements set out in this policy is the responsibility of the heads of each global division or group function. This responsibility includes designing controls (with the assistance of the governance risk and compliance team and finance management) to prevent, where possible, fraud or staff offering and receiving bribes. Our next full, stand-alone ABFC risk assessment will take place in 2023.

Digital security and data protection

We aim to be a data-driven and customer-centric organisation, offering valuable services and insights. We have established technical and organisational measures to protect our systems and commercially sensitive information, and ensure all personally identifiable information we operate with is stored and processed in a legally compliant manner, in recognition of the severe risks from unsecure data and systems.

We run infrastructure and server level security initiatives and continue to invest in training our staff.

Paying a fair share of tax

We commit to contributing a fair share of tax and subscribe to initiatives that increase tax transparency. The average tax rate currently of the Springer Nature Group is approximately 30% and we do not expect material changes in the mid-term.

Our tax strategy for the year ending 31 December 2022 is published on our website.

Human rights in our supply chain

We expect our business partners to align with the same standards that we set out for ourselves; this is why compliance with our Business Partner Code of Conduct is part of our standard contract with our suppliers.

Our Business Partner Code of Conduct covers topics including fair pay and conditions, prevention of forced and child labour, health and safety, and environmental practices. As of 31 December 2022, 99% of business partners that are actively managed in our labour standards programme had committed to follow the code.

All in-scope partners are required to complete a due diligence questionnaire covering modern slavery and human trafficking, and update it at least once every three years, or more often, according to the risk profile of the supplier. Our due diligence questionnaires are regularly reviewed to align with upcoming legal and regulatory requirements relating to ESG matters.

We audit major suppliers to monitor compliance with our Code of Conduct and better understand ESG practices. In 2022, there were 20 audits in scope and all were completed⁴.

Where there are concerns, we work with suppliers to address them, discussing audit findings and supporting follow-up of agreed actions. In 2022, 18 actions were identified as of high importance. These mainly came under the ‘Health and safety’ and ‘Safe and hygienic working conditions’ categories, and included fire drills not conducted, access to aisles and stairways not being kept clear and inadequate numbers of safety officers. At the time of publication of this report, 14 of the 18 actions were resolved and four remain open and we are working with internal relationship owners to close them.

We publish an annual Modern Slavery Act Statement on our website.

Whistleblowing

We have processes for staff, business partners and all third parties to ask questions or raise concerns about how Springer Nature is operating. One of these is Speak Up, a confidential and independent whistleblowing system.

Our employees and business partners are encouraged to raise questions, concerns or breaches of codes of conduct as soon as possible. The number of reports raised via the Speak Up system in 2022 was 106 (slightly lower than in 2021).

The shift towards virtual and now hybrid working environments has had a noticeable impact on the way employees observe and report misconduct. External benchmarking reflects this, indicating that employees are likely to raise their concerns first with their line manager. This is even more likely if the employee is working remotely.

We have actively expanded our communications campaigns and continue to communicate regularly and via all-staff training on the importance of speaking up. This includes training for managers on how to respond to a report made directly to them.

WHISTLEBLOWING REPORTS

	2020	2021	2022
Reports received	128	133	125
Via Speak Up	87	114	106

4 Using the SMETA 2-pillar framework.

APPENDIX

In this section

35 Auditor's report

36 Key data

40 Global Reporting Initiative Index

AUDITOR’S REPORT

To Springer Nature AG & Co. KGaA, Berlin

We have performed a limited assurance engagement on selected non-financial indicators in the area of diversity and carbon reporting (hereafter “selected sustainability disclosures”) within the Sustainable Business Report of the Springer Nature Group (Springer Nature AG & Co. KGaA, Berlin, and its subsidiary companies; hereafter the “Company”) for the reporting period from 1 January 2022 to 31 December 2022 (hereafter the “sustainability report”).

Our engagement exclusively relates to selected sustainability disclosures marked with †. Not subject to our assurance engagement are sustainability disclosures for prior years.

Responsibilities of the executive directors

The executive directors of the Company are responsible for the preparation of the sustainability report, which comprises the selected sustainability disclosures, with reference to the GRI Sustainability Reporting Standards (hereafter “reporting criteria”).

These responsibilities of the Company’s executive directors include the selection and application of appropriate non-financial reporting methods and making assumptions and estimates about individual non-financial disclosures that are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal control as the executive directors consider necessary to enable the preparation of a sustainability report that is free from material misstatement, whether due to fraud (manipulation of the sustainability report) or error.

Independence and quality assurance of the auditor’s firm

We have complied with the German professional requirements on independence as well as other professional conduct requirements.

Our audit firm applies the national legal requirements and professional pronouncements – in particular the BS WP/vBP [“Berufssatzung für Wirtschaftsprüfer/vereidigte Buchprüfer”]: Professional Charter for German Public Accountants/German Sworn Auditors] in the exercise of their Profession and the IDW Standard on Quality Management issued by the Institute of Public Auditors in Germany (IDW): Requirements for Quality Management in the Audit Firm (IDW QS 1) and accordingly maintains a comprehensive quality management system that includes documented policies and procedures with regard to compliance with professional ethical requirements, professional standards as well as relevant statutory and other legal requirements.

Responsibilities of the auditor

Our responsibility is to express a conclusion with limited assurance on the sustainability disclosures based on our assurance engagement.

We conducted our assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised): “Assurance Engagements other than Audits or Reviews of Historical Financial Information” issued by the IAASB. This standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether any matters have come to our attention that cause us to believe that

the sustainability disclosures are not prepared, in all material respects, with reference to the reporting criteria. Not subject to our assurance engagement are any sustainability disclosures for prior years.

In a limited assurance engagement, the procedures performed are less extensive than in a reasonable assurance engagement, and accordingly, a substantially lower level of assurance is obtained. The selection of the assurance procedures is subject to the professional judgment of the auditor.

In the course of our assurance engagement we have, among other things, performed the following assurance procedures and other activities:

- Gain an understanding of the structure of the Group’s sustainability organization, the sustainability strategy and sustainability principles of the Company,
- Inquiries of the executive directors and relevant employees involved in the preparation of the selected sustainability disclosures about the preparation and about the internal control related to this process,
- Identification of likely risks of material misstatement in the selected sustainability disclosures,
- Analytical procedures on the selected sustainability disclosures at group level and on the level of selected sites,
- Evaluation of the presentation of the selected sustainability disclosures.

Assurance conclusion

Based on our assurance procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the selected non-financial indicators in the area of diversity and carbon reporting in the Sustainable Business Report of Springer Nature AG & Co. KGaA for the period from 1 January 2022 to 31 December 2022 have not been prepared, in all material respects, with reference to the reporting criteria.

We do not express an assurance conclusion on any sustainability disclosures for prior years.

Restriction of use

We draw attention to the fact that the assurance engagement was conducted for the Company’s purposes and that the report is intended solely to inform the Company about the result of the assurance engagement. As a result, it may not be suitable for another purpose than the aforementioned. Accordingly, the report is not intended to be used by third parties for making (financial) decisions based on it. Our responsibility is to the Company alone.

We do not accept any responsibility to third parties. Our assurance conclusion is not modified in this respect.

General Engagement Terms and Liability

The “General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms]” dated 1 January 2017 are applicable to this engagement and also govern our relations with third parties in the context of this engagement (www.de.ey.com/general-engagement-terms). In addition, please refer to the liability provisions contained there in no. 9 and to the exclusion of liability towards third parties. We accept no responsibility, liability or other obligations towards third parties unless we have concluded a written agreement to the contrary with the respective third party or liability cannot effectively be precluded.

We make express reference to the fact that we will not update the report to reflect events or circumstances arising after it was issued, unless required to do so by law. It is the sole responsibility of anyone taking note of the summarized result of our work contained in this report to decide whether and in what way this information is useful or suitable for their purposes and to supplement, verify or update it by means of their own review procedures.

Eschborn/Frankfurt am Main, 31 March 2023
Ernst & Young GmbH.
Wirtschaftsprüfungsgesellschaft

YVONNE MEYER
Wirtschaftsprüferin
[German Public Auditor]

BAHAR FISCHER
Wirtschaftsprüferin
[German Public Auditor]

KEY DATA

	2020	2021	2022
Economic			
Revenue (€ billion) ¹	1.63	1.70	1.82
Our research content			
Proportion of journal content published immediate (gold) open access (%) ²	33	36	38
Number of new OA articles published ²	124,200	149,700	154,868
Number of fully OA books	1,250	1,671	2,212
People			
Number of full-time employees (headcount) ³	9,522	9,133	9,553
Number of full-time employees (FTE) ³	9,124	8,728	9,202
Number of employees by continent (headcount) ³			
Europe	4,939	4,751	4,906
North America	1,057	1,024	1,031
South America	770	696	709
Asia	2,422	2,310	2,540
Africa	235	265	286
Oceania	99	88	81
Number of new hires ^{3,4}	Newly reported in 2022		1,962
Number of new hires per region ^{3,4}			
Europe	-	-	791
North America	-	-	204
South America	-	-	123
Asia	-	-	736
Africa	-	-	94
Oceania	-	-	14

- 1 Full year revenues for 2020 and 2021 were impacted by the effects of COVID-19, especially in the education and professional divisions. The research division remained resilient.
- 2 Includes research journal and review article content only, published in fully open access journals or within hybrid journals. Excludes editorials and opinion pieces.
- 3 As at 31 December of the respective year.
- 4 Excludes joiners who left after a day or less; includes interns, trainees and apprentices.

KEY DATA CONTINUED

	2020	2021	2022
People (continued)			
Overall gender split (% men/women) ^{3,5}	Newly reported in 2022		40/58
Gender split per region (% men/women) ^{3,5}	Newly reported in 2022		
Europe	-	-	37/62
North America	-	-	35/61
South America	-	-	45/53
Asia	-	-	48/52
Africa	-	-	37/61
Oceania	-	-	36/64
Gender split – management board (% men/women) ^{3,5}	67/33**	67/33**	67/33†
Gender split – tiers one to three (% men/women) ^{3,5}	57/43**	59/41**	59/41†
Social impact			
Cash donations and sponsorship (€ thousands) ⁶	624	527	1,350
Compliance			
Percentage of suppliers covered by sustainable procurement measures (BPCC) ⁷	Newly reported in 2022		99
Proportion of staff undertaken Code of Conduct training (%) ⁸	96	97	95

- 5 Remaining percentage responded: other, prefer not to say, not known.
- 6 This estimated figure comes from group-wide research and information taken from financial systems, and includes funds given in donations and sponsorships to charities and non-profit organisations to support projects and programmes that align with our aims. Donations in kind are not included in this figure, and increased significantly in 2021. This year a review was undertaken of charitable spend and a new framework for donations and larger budget agreed to commence from 2022.
- 7 Indicates the percentage of suppliers covered under the [Business Partner Code of Conduct](#).
- 8 Percentage of staff that registered and completed online training.

** Reviewed by our auditors in prior years.
† Data reviewed by auditors, see audit statement on [page 35](#).

KEY DATA CONTINUED

	2020	2021	2022
Environment⁹			
Energy usage			
Total energy use (MWh) ¹⁰	22,594	20,559	19,716
Renewable energy (%) ¹¹	57	52	59
Total electricity use (MWh) ¹⁰	13,354	11,371	12,218
Renewable electricity (%)	94	95	95
Overview of carbon neutral target¹²			
Greenhouse gas emissions, gross (tonnes CO ₂ e) ¹³	13,663**	8,602**	15,175 [†]
Greenhouse gas emissions, net (tonnes CO ₂ e) ¹³	8,086**	4,304**	10,107 [†]
Carbon balance after purchase of carbon offsets (tonnes CO ₂ e)	0**	0**	0 [†]
Emissions within scope of carbon neutral target¹²			
Scope 1 (tonnes CO ₂ e)	2,960**	2,910**	3,048 [†]
Scope 2 (tonnes CO ₂ e)			
Location-based emissions ¹⁴	5,286**	4,182**	4,715 [†]
Market-based emissions ¹⁵	543**	538**	463 [†]
Partial scope 3 (tonnes CO ₂ e)			
Flights	4,303**	672**	6,467 [†]
Leased building services (location-based emissions) ¹⁴	1,114**	838**	945 [†]
Leased building services (market-based emissions) ¹⁵	280**	184**	129 [†]

- 9 We collect primary data for our largest sites (those with more than 100 employees, and several other strategically important sites). Approximately 73% of energy consumption, 86% of our associated gross carbon emissions and more than 80% of resource use is therefore based on actual data. Data for the remaining locations is extrapolated based on average values.
- 10 This figure includes energy used by sites where we have operational control, our serviced sites and major outsourced data centres.
- 11 This figure relates to both green electricity purchased directly through the electricity provider, for our sites and one major outsourced data centre, and additional renewable energy certificates (RECs) purchased via a broker for electricity used at other sites.
- 12 In 2020, Springer Nature set a target to be carbon neutral for our offices, fleet and flights. All figures exclude emissions relating to properties leased by Springer Nature to third parties, and the transmission and distribution of electricity. Additionally, the 'outside of scopes' ('biogenic' part of biofuels) emissions are estimated at 98 tonnes.
- 13 Gross emissions do not factor in purchasing of renewable energy, including RECs, or offsets. Net emissions factor in supplier-sourced green electricity and purchases of additional RECs, but excludes offsets.
- 14 For location-based emissions reporting, we apply the following hierarchy of emissions factors:
1. Regional or subnational grid average where a recent factor is readily available.
 2. National production figures sourced from the International Energy Agency (2022).

Factor source	Country
Umwelt Bundesamt, Strom- und Wärmeversorgung in Zahlen (2022)	Germany
UK Government, greenhouse gas reporting: conversion factors (2022)	UK
The most recently published regional or subnational grid factors available from the national government	Argentina, Australia, France, Japan, Mexico, New Zealand, Singapore, Switzerland, Taiwan, Thailand, USA and Vietnam
United Nations Framework Convention on Climate Change, Standardized baseline – grid emission factor for Southern African Power Pool, Version 01.0 (2018)	Botswana, eSwatini, Lesotho, Namibia and South Africa
European Environment Agency, greenhouse gas emission intensity of electricity generation (2022 edition)	All other European operations
IEA, Emissions Factors (2022 edition)	All other operations

- 15 Market-based emissions figures include the carbon benefits of purchasing supplier-sourced green electricity and additional purchases of RECs.

** Data reviewed by auditors in previous years.
† Data reviewed by auditors, see audit statement on [page 35](#).

KEY DATA CONTINUED

	2020	2021	2022
Environment ⁹ (continued)			
Emissions intensity (per unit of revenue)			
Gross emissions per million euros (tonnes CO ₂ e) ¹³	8	5	8
Net emissions per million euros (excludes offsets) (tonnes CO ₂ e) ¹³	5	3	6
Resource use			
Total water usage (cubic metres)	49,399	41,090	37,216
Total site waste production (tonnes) ¹⁶	596	503	585
Proportion office waste separated from general waste streams (%) ¹⁷	39	51	49
Office paper (tonnes)	33	23	22
Production paper (tonnes)	24,105	24,412	29,961
Production waste (tonnes) ¹⁸	980	2,074	615

16 Figure relates to typical Springer Nature office and warehouse waste streams and excludes recycling of unsold product and damaged production paper and recycling of construction wastes.

17 The indicator relates to waste that has been separated for recycling, reuse, production of biofuels and composting. It does not include waste that has been sent to incineration (such as in energy-from-waste facilities) or landfill. This indicator relates to our largest sites (those with more than 100 employees, and several other strategically important sites).

18 We report production waste generated from third-party warehouses and printers, which includes unsold product. Data for the largest warehouse suppliers shows this paper is sent for recycling.

GLOBAL REPORTING INITIATIVE (GRI) INDEX

Springer Nature has reported the information cited in this GRI content index for the period 1 January – 31 December 2022 with reference to the 2021 GRI Standards. This index can be used to find key environmental, social and governance (ESG) information, organised by the relevant and most up-to-date GRI Universal and Topic Standards with GRI 3-3 Management Approach integrated for each topic. We believe this is the most appropriate approach for communicating effectively with our stakeholders.

GRI STANDARD	DISCLOSURE	DETAIL
GRI 2: General Disclosures 2021	2-1 Organizational details	Springer Nature Group
	2-2 Entities included in the organization’s sustainability reporting	Reporting covers entities that are part of Springer Nature Group: Springer Nature AG & Co. KGaA and its subsidiary companies. It is referred to through this report as ‘Springer Nature’, ‘the company’ or ‘the organisation’. During 2022, Springer Nature acquired the Cureus Journal of Medical Science, Austrian health start-up Medbee and a remaining share of Research Square AJE LLC and Research Square R&D LLC. It disposed of Rendement B.V., a Dutch publisher. Please see https://group.springernature.com/gp/group/about-us for more information.
	2-3 Reporting period, frequency and contact point	The 2022 Sustainable Business Report covers the period from January to December 2022, in line with Springer Nature’s financial year. We report annually, typically in the second quarter. Enquiries can be forwarded to communications@springernature.com .
	2-4 Restatements of information	To ensure fair comparison of data year on year, and in accordance with our baseline and recalculation policy, we restate figures from previous years if there is a significant change to data gathering processes, methodology and improvements in data accuracy. We have restated 2019 figures (our baseline year) for carbon emissions and energy use, used in charts on pages 26 and 27 .
	2-5 External assurance	Our auditor, EY, performed a limited assurance engagement on selected non-financial indicators in the area of diversity and carbon reporting marked in the data charts on pages 26–27 of this report and the data table on pages 36–39 with † in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised). Their full statement can be read on page 35 of this report.
	2-6 Activities, value chain and other business relationships	Springer Nature is a leading publisher of research, educational and professional content. We add value to our communities by providing digital and print content in the form of journals, books and databases primarily to academic and governmental institutions, corporate customers and individuals. More information can be found in the About Us section of our website, and in our Annual Progress Report . Springer Nature has an international supply chain. Direct goods and services include: global production (pre-press, print, paper) and global distribution (transport and shipping, postage, warehousing and logistics). Indirect goods and services include: IT (hardware, software, services, fixed/mobile telecoms), marketing, travel and events, external agencies and communications, auditing, consulting/outsourcing/offshoring. See page 26 of this report for how we are engaging our value chain with Springer Nature’s net zero commitments.
	2-7 Employees	Unlocking Potential, pages 17–19

GLOBAL REPORTING INITIATIVE (GRI) INDEX CONTINUED

GRI STANDARD	DISCLOSURE	DETAIL
GRI 2: General Disclosures 2021	2-8 Workers who are not employees	The vast majority of our company's activities are performed by permanent employees. Temporary staff include seasonal workers in warehouses, to assist with peak seasons.
	2-9 Governance structure and composition	More information can be found in the About Us and Corporate Governance sections of our website.
	2-10 Nomination and selection of the highest governance body	Corporate Governance
	2-11 Chair of the highest governance body	Our supervisory board
	2-12 Role of the highest governance body in overseeing the management of impacts	Corporate Governance
	2-13 Delegation of responsibility for managing impacts	Corporate Governance
		Our executive team
		Sustainability governance and materiality, page 6
	2-14 Role of the highest governance body in sustainability reporting	Sustainability governance and materiality, page 6
	2-15 Conflicts of interest	Corporate Governance
	2-16 Communication of critical concerns	Approaching compliance risks and critical concerns, page 33
	2-17 Collective knowledge of the highest governance body	Corporate Governance
		Sustainability governance and materiality, page 6
	2-18 Evaluation of the performance of the highest governance body	Corporate Governance
	2-19 Remuneration policies	Corporate Governance
	2-20 Process to determine remuneration	Corporate Governance
	2-22 Statement on sustainable development strategy	Joint statement from our Chair and CEO, page 4
	2-23 Policy commitments	Our Code of Conduct for employees, sets out our expectation that all employees are treated fairly and respectfully. The group-wide compliance system is designed to identify and proactively address relevant legal and regulatory risks, and other issues covered in our Code of Conduct. See page 32 of this report.

GLOBAL REPORTING INITIATIVE (GRI) INDEX CONTINUED

GRI STANDARD	DISCLOSURE	DETAIL
GRI 2: General Disclosures 2021	2-24 Embedding policy commitments	Code of Conduct Governance, risk and compliance, page 32 All stakeholders can raise concerns via Speak Up
	2-25 Processes to remediate negative impacts	Code of Conduct Governance, risk and compliance, page 32 All stakeholders can raise concerns via Speak Up
	2-26 Mechanisms for seeking advice and raising concerns	Code of Conduct Governance, risk and compliance, page 32 All stakeholders can raise concerns via Speak Up
	2-27 Compliance with laws and regulations	We had no instances of fines for non-compliance that met our materiality threshold.
	2-28 Membership associations	This non-exhaustive list includes associations that are important for Springer Nature to represent company interests and where our staff take a leading role. Book Chain Project, Media Law Resource Center Research and Health segments: American Library Association, Associação Brasileira de Editores Científicos (ABEC), Association of Learned and Professional Society Publishers (ALPSP), Börsenverein des Deutschen Buchhandels, CHORUS, Crossref, De Mediafederatie, International Union of Pure and Applied Chemistry, LIBER, NASIG, National Information Standards Organization (NISO), Open Access Scholarly Publishers Association (OASPA), ORCID, the Publishers Association, Research Data Alliance, Research4Life, SNSI, Society for Scholarly Publishing (SSP), South African National Library and Information Consortium, Special Library Association, STM. Education segment: Associação Brasileira de Livros e Conteúdos Educacionais (Abrelivros), Association of Publishers – India, Cámara Argentina del Libro, Cámara Nacional de la Industria Editorial, Federation of Indian Publishers, Publishers Association of South Africa (PASA), Polish Chamber of Books, Egyptian Publishers Association. In addition, parts of our Professional segment are members of relevant associations to their markets in Germany, France, the Netherlands and Austria.

GLOBAL REPORTING INITIATIVE (GRI) INDEX CONTINUED

GRI STANDARD	DISCLOSURE	DETAIL
GRI 2: General Disclosures 2021	2-29 Approach to stakeholder engagement	<p>We define our stakeholders as those parties who can have an impact on our business or who are impacted by our business.</p> <p>Our key stakeholders are those with the greatest impacts, i.e. the institutions, researchers and educators we work with; our employees; and our shareholders. We use a variety of means to engage with stakeholders. This engagement is not carried out specifically as part of the report preparation process but as part of our general management approach, and summaries are reviewed as part of the materiality approach. For example:</p> <ul style="list-style-type: none">• We engage with our global workforce through our annual employee engagement survey (see page 8 of this report).• We engage with institutions, researchers and educators mainly at conferences, client meetings, via editorial boards, library advisory boards and other events.• We engage with others in our industry on environmental issues through the quarterly meetings of the BookChain project and as part of the UK Publishers Association Sustainability Taskforce.
	2-30 Collective bargaining agreements	<p>Springer Nature recognises the importance of open communication and engagement between workers and managers regarding working conditions. We respect our employees’ legal rights to freely associate, organise and bargain collectively without fear of harassment, intimidation, penalty or reprisal. We require our business partners to do the same with their own employees, as stated on page 9 of our Business Partner Code of Conduct. We have works councils, employee representation forums or other local formally elected employee representation groups in Austria, France, Germany, the Netherlands, Spain and the United Kingdom, covering around half of our global workforce. In markets where collective bargaining is inhibited by law or by custom, we provide other means for employees to provide collective feedback and receive a considered response, such as town halls and via our company intranet.</p> <p>Approximately 50% of our global workforce is covered by employee representation forums or works councils and 28% by collective bargaining agreements. An international staff representative forum maintains regular dialogue about important organisational developments or employee matters, and also includes representatives from countries not formally covered by works councils. Additional global means for employees to provide collective feedback and receive a considered response include town halls and the company intranet.</p>
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Sustainability governance and materiality, page 6
	3-2 List of material topics	
	3-3 Management of material topics	
GRI 203: Indirect Economic Impacts 2016	3-3 Management of material topics	Sustainability governance and materiality, page 6 Annual Progress Report
	203-2 Significant indirect economic impacts	<p>In the section Advancing Discovery, pages 7–15, we outline our role in facilitating access to research, education, vocational training and professional development supports a wide range of industry sectors. We go further by supporting the participation of researchers from lower-income countries and other underrepresented groups in the global research community – for example, through our membership of Research4Life and provision of article processing charge (APC) waivers. We have a specific focus on research for the SDGs, supporting sustainable development.</p>

GLOBAL REPORTING INITIATIVE (GRI) INDEX CONTINUED

GRI STANDARD	DISCLOSURE	DETAIL
GRI 204: Procurement Practices 2016	3-3 Management of material topics	Business Partner Code of Conduct Modern Slavery Act Statement Engaging our suppliers, page 28
	3-3 Management of material topics	Anti-bribery, fraud and corruption, page 33
	205-1 Operations assessed for risks related to corruption	Sustainability governance and materiality, page 6
GRI 205: Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	Governance, risk and compliance, pages 32–33 Code of Conduct
	205-3 Confirmed incidents of corruption and actions taken	
GRI 206: Anti-competitive Behavior 2016	3-3 Management of material topics	We are cooperating with authorities in two jurisdictions to respond to competition-related investigations.
	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Anti-bribery, fraud and corruption, page 33 Sustainability governance and materiality, page 6 Governance, risk and compliance, pages 32–33 Code of Conduct
GRI 207: Tax 2019	3-3 Management of material topics	Paying a fair share of tax, page 33
	207-1 Approach to tax	Please see our tax strategy disclosure .
	207-2 Tax governance, control, and risk management	
	207-3 Stakeholder engagement and management of concerns related to tax	

GLOBAL REPORTING INITIATIVE (GRI) INDEX CONTINUED

GRI STANDARD	DISCLOSURE	DETAIL
GRI 301: Materials 2016	3-3 Management of material topics	Reducing our impact on nature, page 30
	301-1 Materials used by weight or volume	<p>The tonnage of paper used to produce our printed products is reported on page 30 of this report, where you can also find out more about our policies for responsible sourcing of paper. As we increasingly distribute content digitally, this issue is becoming less material over time. We do not have centralised data on the use of packaging materials for all of our products.</p> <p>See page 30 of this report for our work on reducing the impact of product packaging. We report production waste generated from third-party warehouses and printers, which includes unsold product (see page 30 of this report).</p>
GRI 302: Energy 2016	3-3 Management of material topics	Our approach to carbon, pages 26–28
	302-1 Energy consumption within the organization	Environment data table, pages 38–39
	302-2 Energy consumption outside of the organization	
	302-3 Energy intensity	
	302-4 Reduction of energy consumption	
	302-5 Reductions in energy requirements of products and services	
GRI 305: Emissions 2016	3-3 Management of material topics	Our approach to carbon, pages 26–28
	305-1 Direct (Scope 1) GHG emissions	Environment data table, pages 38–39
	305-2 Energy indirect (Scope 2) GHG emissions	
	305-3 Other indirect (Scope 3) GHG emissions	
	305-4 GHG emissions intensity	
	305-5 Reduction of GHG emissions	
	305-6 Emissions of ozone-depleting substances (ODS)	

GLOBAL REPORTING INITIATIVE (GRI) INDEX CONTINUED

GRI STANDARD	DISCLOSURE	DETAIL
GRI 308: Supplier Environmental Assessment 2016	3-3 Management of material topics	Business Partner Code of Conduct Our approach to carbon, pages 26–28
	308-1 New suppliers that were screened using environmental criteria	Our approach to carbon, pages 26–28 Governance, risk and compliance, pages 32–33
	308-2 Negative environmental impacts in the supply chain and actions taken	
GRI 401: Employment 2016	3-3 Management of material topics	Be part of progress, page 17
	401-1 New employee hires and employee turnover	Data table in this report, page 36
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Setting out our approach as an employer, page 17
GRI 402: Labor/ Management Relations 2016	3-3 Management of material topics	Code of Conduct Be part of progress, page 17
GRI 403: Occupational Health and Safety 2018	3-3 Management of material topics	Employee wellbeing and engagement, page 18 The accident frequency rate in the locations where it is reported was 0.47 per million hours worked. The accident reporting covers 42 countries and 122 sites, which amounts to 95% of our full-time employees.
GRI 404: Training and Education 2016	3-3 Management of material topics	Employee wellbeing and engagement, page 18 Data table in this report, page 36
GRI 405: Diversity and Equal Opportunity 2016	3-3 Management of material topics	Diversity, equity and inclusion, pages 19–21
	405-1 Diversity of governance bodies and employees	We had no instances of fines for noncompliance that met our materiality threshold.

GLOBAL REPORTING INITIATIVE (GRI) INDEX CONTINUED

GRI STANDARD	DISCLOSURE	DETAIL
GRI 406: Non-discrimination 2016	3-3 Management of material topics	Code of Conduct
GRI 408: Child Labor 2016	3-3 Management of material topics 408-1 Operations and suppliers at significant risk for incidents of child labor	Our Business Partner Code of Conduct covers topics including fair pay and conditions, prevention of forced and child labour, health and safety and environmental practices. We also publish an annual modern slavery statement .
GRI 409: Forced or Compulsory Labor 2016	3-3 Management of material topics 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Our Business Partner Code of Conduct covers topics including fair pay and conditions, prevention of forced and child labour, health and safety and environmental practices. We also publish an annual modern slavery statement .
GRI 410: Security Practices 2016	3-3 Management of material topics	Our Business Partner Code of Conduct covers topics including fair pay and conditions, prevention of forced and child labour, health and safety and environmental practices. We also publish an annual modern slavery statement .
GRI 414: Supplier Social Assessment 2016	3-3 Management of material topics 414-1 New suppliers that were screened using social criteria 414-2 Negative social impacts in the supply chain and actions taken	Modern Slavery Act Statement Business Partner Code of Conduct
GRI 418: Customer Privacy 2016	3-3 Management of material topics 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Digital security and data protection, page 33 Springer Nature has not received any substantiated complaints relating to customer or employee privacy this year.

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