

# UNLOCKING POTENTIAL

Springer Nature  
Sustainable Business Report 2021



SPRINGER NATURE GROUP

At Springer Nature, we open doors to discovery to enable progress towards a better future for all.

Research and learning are the cornerstones of progress, which is why we enable researchers, educators, clinicians and other professionals to access, trust and make sense of the latest research, to improve knowledge and benefit future generations.

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### About this report

Our Sustainable Business Report highlights the most material environmental, social and governance (ESG) issues for Springer Nature, how we monitor and manage these and our recent progress.

This report, which also discusses how the company aims to support the delivery of the Sustainable Development Goals (SDGs) (see pages 12–14), has been prepared with reference to the Standards of the Global Reporting Initiative (GRI) (see pages 33–40).

In a new direction for 2021, this report has been structured to present our sustainable business strategy and its role in our work more holistically.

We focus on performance and progress from 1 January to 31 December 2021. Some case studies and other stories refer to activities that began before 2021. These are either ongoing projects, still relevant to our work in 2021, or relate to our most material issues. Our reporting covers entities that are part of the Springer Nature Group – see page 36 of this report for more detail of entities covered.

### Find out more

Explore Springer Nature's 2021 progress in sustainability on our microsite and find other relevant reports and documents at [www.springernature.com/SustainableBusiness](http://www.springernature.com/SustainableBusiness)

### Our business in 2021

9,000+ employees

~90,000 network of editors

1.4 million+ research submissions per year

3,000+ journals

~13,000 new books

~45 countries of operation

750,000+ peer reviewers

2.5 million+ visits to our content platforms per day

400,000+ articles published

110+ new series of education textbooks, used by 30 million+ students



Learn more in our introductory video



## FOREWORD FROM OUR CHAIRMAN AND CEO



STEFAN VON HOLTZBRINCK  
CHAIRMAN



FRANK VRANCKEN PEETERS  
CEO



Science continued to lead the news agenda in 2021. As concerns about misinformation grew, people increasingly looked for information they could trust in order to make sense of the latest insights. Providing access to verified, evidence-based knowledge sits right at the heart of our mission to open doors to discovery.

In 2021, we invested in new technologies to further protect research integrity and to improve workflows, enabling researchers to work more efficiently. We continued to communicate research through our existing platforms, such as the daily source of science news *Nature Briefing*, which has an annual reach of 1.4 million, and in new ways, such as our recently launched *In Conversation* series of video interviews with world-leading researchers.

Another way to improve the reach and impact of research is the transition to open access (OA) publishing. For 20 years now, we have been strong advocates of OA and a memorable moment for us this year was the publication of our one millionth immediately available OA article. We are proud of this major OA milestone and industry first, and grateful for the hard work of so many colleagues across Springer Nature who made it a reality.

We continue to build on this momentum and aim to move faster to an open science future. We believe that, whether developing vaccines to tackle an evolving pandemic or creating policy responses to an escalating climate emergency, solutions can be developed most rapidly when all the outputs of research – data, code, protocols, initial outputs via preprints and the final published version of record – are open to all.

This year we put a special focus on climate action, in recognition of the vital importance of research to the discussions and decision-making at the 2021 United Nations Climate Change Conference, COP26, in Glasgow in November. We appointed the sector's first Climate Action Officer and joined several cross-sector initiatives committing to bring value chain emissions to net zero. We're developing science-based targets to enable us to do this in line with the actions needed to meet the goals of the Paris Agreement.

Global challenges – neatly summarised in the UN [Sustainable Development Goals \(SDGs\)](#) – won't be solved in a single research lab, institution or think tank. They require teamwork, cross-disciplinary thinking and an openness to alternative views. As this report shares, we work to further build an open culture at Springer Nature where all our colleagues can thrive and where we champion diversity, equity and inclusion not just within the company itself but also among the wider communities with which we work. This includes important work in our education division in the development of curriculum content that supports critical thinking and a broader understanding of citizenship.

Our teams around the world have worked more flexibly in 2021. Although we have not yet fully settled into a 'new normal,' we continue to be inspired by the purposeful way Springer Nature colleagues tackle the uncertainties of the pandemic while meeting the needs of the educators, researchers and professionals that we serve.

### Our vision

We will accelerate solutions to the world's urgent challenges by unlocking the potential of open science and research across all disciplines, advancing knowledge and inspiring all to achieve more to improve the lives of generations to come.

### Our mission

Opening doors to discovery. Research and learning are the cornerstones of progress, which is why we open doors to discovery, enabling millions of researchers, educators, clinicians and other professionals to access, trust and make sense of the latest insights.

Although this report focuses on our efforts in 2021, it is being published in April 2022 amid the ongoing war in Ukraine. Springer Nature condemns the Russian invasion of Ukraine. Our thoughts are with all those affected by the unfolding situation across the region. Read our full statement [on our website](#).

# INSPIRING CHANGE

## Unlocking value as a purpose-driven organisation

**As a publisher, Springer Nature is at the centre of an extensive network of authors, researchers, editors, educators, funders and policymakers. Responsibility is one of our core values and we strive to act as a sustainable and ethical business, committed to addressing our operational environmental impacts.**

Springer Nature is a leader in publishing trusted research and analysis of critical importance to our understanding of global challenges, and in identifying and refining solutions. We make connections between researchers, policymakers and practitioners by providing topical information and commentary: through journals such as *Nature Sustainability* and *Nature Climate Change*, books including the *Sustainable Development Goals Encyclopedia*, dedicated content hubs for each of the 17 SDGs, new publishing formats such as Policy Briefs and through partnerships and events that we convene. Our science writers and media relations team work to communicate science accurately and clearly, both direct to the public – including through our publications *Nature*, *Scientific American* and *Spektrum der Wissenschaft* – and via specialist and mainstream media.

Our sustainable business strategy is rooted in these core facts about our business, the stakeholders we work with every day and the influence that we can have on – and in – society.



## CELEBRATING ACTION: SDG IMPACT FESTIVAL

During 2021, we held our first internal SDG Impact Festival to recognise and celebrate those across the company who are going above and beyond to develop projects that support delivery of the SDGs, or demonstrate commitment to sustainability in other ways. There were almost 80 entries to the festival, and five individuals and three business projects were recognised as festival winners.

Aakanksha Tyagi, a Life Sciences Book Program Leader, South Asia, the Middle East and Africa, was one of the winning 'Heroes'. Based in New Delhi, Aakanksha was nominated for her work in the following areas:

- Amplifying SDG content – by launching several major new book series, ranging from sustainability sciences in Asia and Africa to disaster resilience and clean energy production, and working closely with key institutes to support her projects.
- Engaging and supporting communities – through the organisation of external events, including webinars, panel discussions and book launches connected to the SDGs.
- Living the values of diversity and inclusivity – by ensuring that her book series include balanced representation of women scientists and experts from diverse fields.
- Championing SDGs within Springer Nature – through her role as an active member of the Springer Nature Women India chapter and the Green Office Network.

Aakanksha is actively working with researchers, relevant institutes and funders to strengthen Springer Nature's vision on the SDGs.



# SUSTAINABILITY STRATEGY AND GOVERNANCE

Our sustainable business strategy is overseen by a steering group, which includes members of the management board and executive team, as well as committees that oversee relevant activities and communications. These committees interact with specialist working groups that focus on specific strategy areas.

The issues deemed most material are outlined in the materiality matrix. Our sustainable business team reviewed and updated the materiality matrix in 2021, in consultation with our governance committees, based on an understanding of key topics of interest to stakeholders during the year. We report progress in each of the areas on the matrix, actively managing those highest priority issues that are subject to internal monitoring.

The ongoing transition to OA publishing and the trend in opening up research more broadly, as well as the need for rigorous processes to ensure research integrity, continue to be some of the most material issues for Springer Nature (read more about this issue on pages 15–16).

The issue of ‘climate impacts’ has increased in prominence on the ‘Influence’ axis of the matrix this year, in recognition of the increased external interest in how businesses are meeting expectations and commitments in relation to the climate. This is also reflected in steps Springer Nature has taken this year, including signing [The Climate Pledge](#), [committing to set science-based targets](#) as part of the Business Ambition for 1.5°C campaign, appointing a [Climate Action Officer](#) – a first within the publishing industry –

and launching the [Climate Research in Action](#) campaign (see pages 6–8).

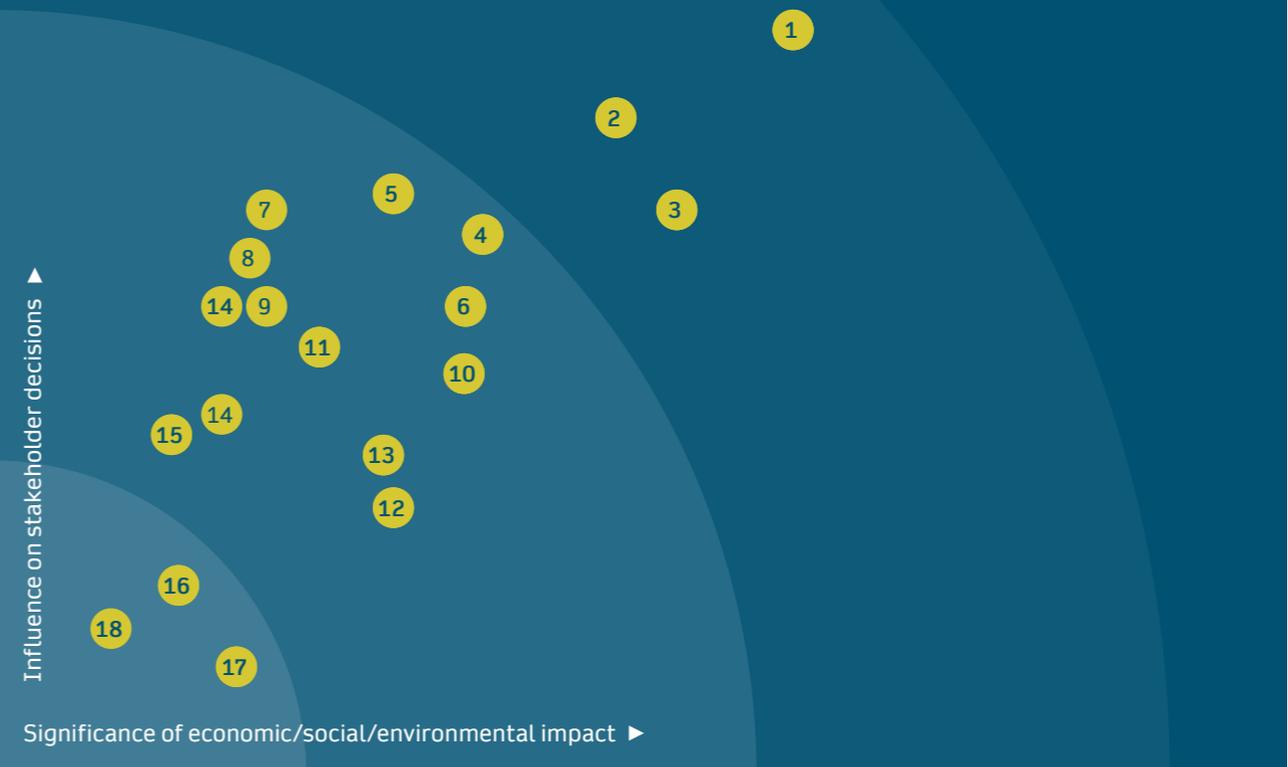
Our auditor, EY, performed a limited assurance engagement on selected non-financial indicators in the areas of carbon reporting (pages 8–10), diversity (page 20) and key data (pages 31–32) in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised). Its full statement can be read on [page 30](#).

## OUR GOVERNANCE APPROACH



## MATERIALITY MATRIX

- |                                       |   |                                   |
|---------------------------------------|---|-----------------------------------|
| 1 Opening up access to research       | 7 Workforce wellbeing                       | 13 Business conduct and integrity |
| 2 Safeguarding research integrity     | 8 Employee engagement                       | 14 Climate impacts                |
| 3 Accelerating solutions to SDGs      | 9 Workforce diversity, equity and inclusion | 15 Product/packaging materials    |
| 4 Responsible editorial policies      | 10 Author rights                            | 16 Tax                            |
| 5 Diversity in the research community | 11 Data privacy and security                | 17 Labour standards               |
| 6 Technology and innovation           | 12 Content piracy/intellectual property     | 18 Occupational health and safety |

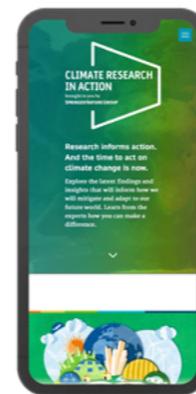


# ENVIRONMENT: MANAGING OUR IMPACTS

## ACTION FOR OUR SHARED CLIMATE

Springer Nature is a world-leading publisher of climate research, responsible for sharing over 48,500 journal articles and book chapters in this space since 2015 (a 20% increase since our 2020 report). Below are some of the ways we have linked research with action in 2021.

- Committed to setting science-based targets that are in line with the action needed (collectively with others) to limit global temperature increases to 1.5°C. These will be independently verified. In addition, we continue to report on carbon annually – see [page 9](#) for this year's data.
- Launched [Climate Research in Action](#), a campaign to coincide with the COP26 climate conference, to bring some of the most important research articles related to climate solutions together as a resource for policymakers and others attending the conference. We made a range of resources freely available for the duration of the conference, because there has never been such a vital time to help as many people as possible learn and benefit from the climate research we have published.
- Journalists from *Nature* reported on the scientific perspectives and implications of the discussions taking place at COP26.
- Provided a place for researchers around the world to come together to interact, share the stories behind their research articles and explore the latest research through a dedicated channel on our [Sustainability Communities](#) platform.
- Contributed to a virtual exhibition of over 140 books from 35 publishers focusing on climate change and sustainability, to coincide with COP26, and joined the [Climate Change Knowledge Cooperative](#), which provides easy to understand explanations of important research for the public. We want to ensure climate knowledge is comprehensible to, and acted on by, the broadest possible audience.



“Following the science is second nature at Springer Nature, so becoming part of the Business Ambition for 1.5°C campaign and setting science-based targets make sense for the company.”

**Thea Sherer, Director of Sustainability, Springer Nature**

# 2021: A PIVOTAL YEAR

How we supported climate action this year

## 2020

### Became carbon neutral for offices and flights\*

For the first time, Springer Nature became carbon neutral for emissions from our offices, fleet and flights. Green electricity, renewable electricity certificates and carbon offsets helped us get there.

## APRIL

### Signed The Climate Pledge

Springer Nature joined 200+ businesses (and counting) in pledging regular reporting, carbon elimination and credible offsets – with a goal of reaching net zero by 2040, 10 years ahead of the Paris Agreement.

## AUGUST

### Appointed a Climate Action Officer

Director of Sustainability, Thea Sherer, was tasked with coordinating net zero commitments.

### Launched Group-wide Environmental Policy internally

New document for staff sets clear guidelines on how Springer Nature will reduce its environmental footprint in line with its aims and targets.

## OCTOBER

### Committed to set science-based targets (Business Ambition for 1.5°C campaign)

On Climate Action Day, we committed to set independently assessed science-based targets. *“As a world-leading climate publisher, we are acutely aware of the importance of turning to science when solving pressing global challenges.”* Thea Sherer, Director of Sustainability

## NOVEMBER

### UN climate conference, COP26, took place

Springer Nature and Sustainable Development Solutions Network (SDSN) hosted the event ‘[Learning from Crises: from COVID to Climate](#)’.

[Nature](#) journalists reported the [scientific perspective](#) from COP26.

[Climate Research in Action](#) campaign launched alongside COP26.

### Springer Nature Green Week

We offered an interactive sustainability Q&A with our Chief Operating Officer (COO), a panel discussion on offsetting and local sustainability events.

## DECEMBER

### We took action across sites

By the end of 2021, 14 of Springer Nature’s larger sites had completed the Green Building Checklist and had actions in place to reduce our environmental footprint.



\*Reviewed by our auditors in 2020.

# TAKING RESPONSIBILITY FOR OUR IMPACTS

Springer Nature is committed to managing its environmental impacts, being carbon neutral and making positive contributions to the UN SDGs. We are also working towards becoming net zero.

## Definitions

Springer Nature has been **carbon neutral** since 2020, meaning we offset outstanding emissions from our direct operations (offices, warehouses and fleet), as well as business flights (scopes 1, 2 and partial scope 3).\*

We are aiming to be **net zero** by 2040, taking into account emissions across our wider value chain such as purchased goods and services and use of our products, in line with guidance from the Science-Based Targets initiative (SBTi).

We report our carbon footprint in three ways: gross carbon emissions (2021: 8,602 tCO<sub>2</sub>e); net carbon emissions before offsetting, including the reduction in emissions from buying renewable electricity (2021: 4,304 tCO<sub>2</sub>e); and net carbon emissions after the purchase of carbon offsets (2021: zero tCO<sub>2</sub>e).†

We recognise that all organisations have a part to play in tackling the climate crisis. In 2021, we rolled out our first global Environmental Policy. This internal document sets out our expectations for the most material environmental impacts outlined in this report.

The policy applies to all colleagues, and brings together a range of practical guidance under a clear vision.

\*Reviewed by auditors in 2020. †Data in this paragraph was reviewed by our auditors – please see audit statement on [page 30](#).

## OUR ENVIRONMENTAL POLICY IN ACTION



### Travel

Minimise travel and use greener modes where possible



### Offices

Reduce energy use



### Water

Monitor water use at largest sites and seek to improve efficiency where possible



### Paper

Ensure paper is sustainably sourced by our suppliers



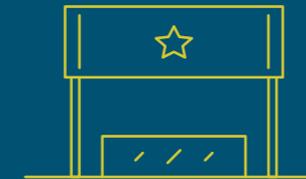
### Packaging

Minimise use of plastic wrap and trial biodegradable or alternative replacements



### Supply chain

Suppliers must adhere to our Code of Conduct, which includes environmental expectations



### Marketing and events

Ask staff to consider sustainable sourcing and waste reduction



### Cloud services

Strive to use suppliers that are carbon neutral or that are committed to being by 2025

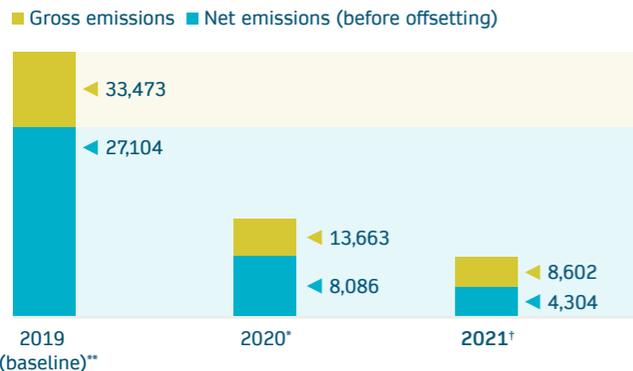
# ACTING ON CARBON

## The ongoing impact of the COVID-19 pandemic remains clear in our environmental data for 2021.

Our data shows a 37% decrease in our gross carbon footprint (scopes 1, 2 and partial scope 3) compared to 2020 levels, before the purchase of green electricity, renewable electricity certificates (RECs) and offsetting is accounted for.†

Total energy use in our buildings decreased by 9% compared to 2020 levels. Many offices remained closed or with restricted occupancy, and some locations saw efforts to improve energy efficiency during the pandemic. Europe and China experienced a cold winter and this, combined with ongoing efforts to refresh office air regularly, led to additional energy use in some locations. At our London campus, we used data to optimise air exchange rates, and our New York office had a ‘power down’ program.

### GREENHOUSE GAS EMISSIONS (TONNES OF CO<sub>2</sub> EQUIVALENT/tCO<sub>2</sub>e)



We purchased green electricity via our power suppliers backed by RECs at 23 sites in six countries in 2021. We have purchased additional RECs at around 120 sites in 36 countries. For seven additional sites, where it is impractical to buy RECs due to small volumes, and for all other outstanding emissions, we have purchased carbon offsets (see page 10). Once RECs are considered, the net carbon decrease since 2020 is 47% (not including offsetting).†

### Business travel

Business flight emissions in 2021 showed a decrease of 84% compared to 2020 because travel remained restricted due to the pandemic.†

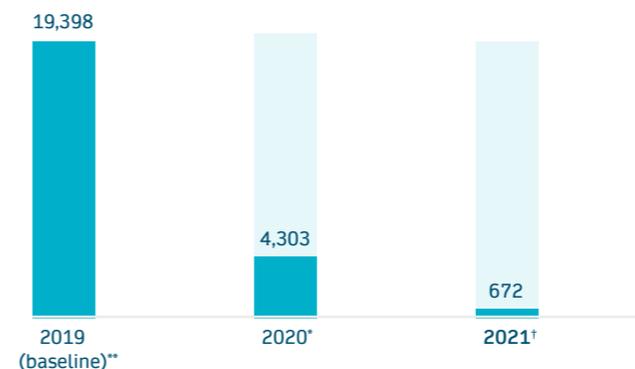
Compared to pre-pandemic levels, business flight emissions remain low, reflecting the impact of the pandemic. We have continued with the virtual first policy for internal meetings introduced in 2020, with the aim of reducing emissions and increasing efficiency. We anticipate that travel will increase in 2022, and are taking steps to monitor any increase. We are working with staff to ensure travel is only undertaken where there is a clear business purpose.

### Flexible working

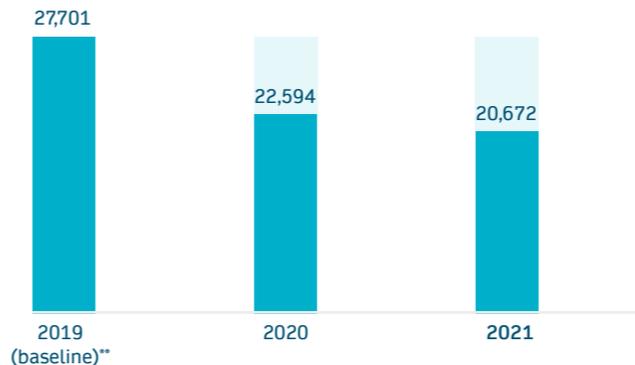
We had already started to create flexible office working spaces before the pandemic, and – taking account of employee feedback about hybrid working – we expect this trend to continue and that our overall office footprint will reduce to better suit changing needs. Like many companies, we are considering how best to

quantify our working from home carbon footprint as part of our scope 3 assessments, reviewing developing methodologies to understand which are most relevant to our business.

### BUSINESS FLIGHT EMISSIONS (tCO<sub>2</sub>e)



### TOTAL ENERGY USE (MWh)



## SHORT-TERM CARBON TARGETS

Decarbonising our operations, supply chain and products is challenging – and in line with many companies we are still developing our detailed plans. We know that waiting until all the relevant information and technologies become available will mean acting too late, so we are already working towards interim targets.

**Net zero targets** – Set science-based targets against a 2019 baseline, covering at least 95% of our scope 1 and 2 emissions and two-thirds of our scope 3 emissions in 2022.

**People** – Roll out introductory sustainable business training to all employees via a three-year programme starting in 2022.

**Offices** – Set up Green Building Checklists and action plans for major sites in 2022, and review half-yearly 2022–2025. Implement space-saving strategies across our global office portfolio and measure associated carbon reductions.

**Suppliers** – Actively engage 50% of print and 50% of pre-press suppliers (by spend) to align on our sustainability targets by 2022.

**Products** – Inform end-of-life recycling by labelling new titles in our printed books and journals portfolio by 2025.

**IT** – Transition from data centres to carbon-neutral and energy-efficient cloud-based suppliers wherever possible by 2025.

†Data in this paragraph/bar was reviewed by our auditors – please see audit statement on page 30. \*Data was reviewed by our auditors in 2020. \*\*2019 baseline excludes data from SPS business (divested in December 2019).

# CARBON COMPENSATION

In 2021, our net emissions (before offsetting) were 4,304 tCO<sub>2</sub>e from our offices, fleets and flights. We purchased certificates equivalent to 10,000 tonnes of carbon in 2020 and 2021.<sup>†</sup>

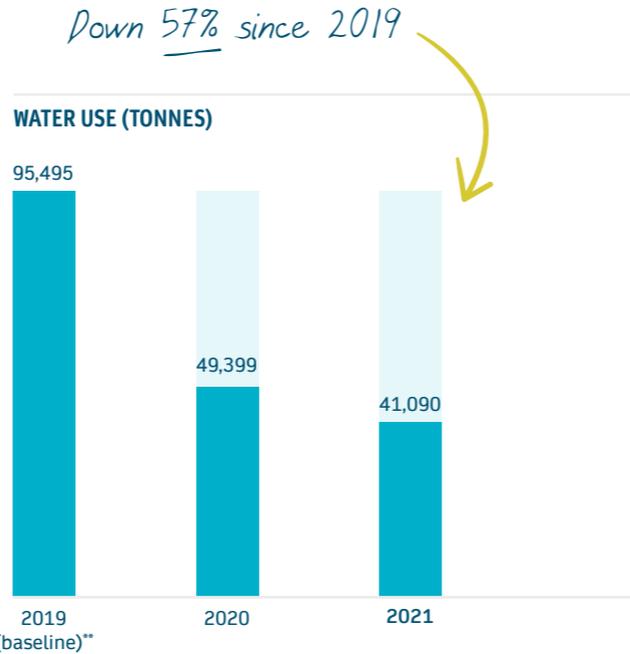
We engage with offset projects that generate independently verified carbon savings that would not have otherwise occurred. Our offsetting approach centres on forestry projects, which resonates with the use of paper in our supply chain, and we work with projects that draw on local knowledge and needs. We understand that different types of offsetting projects store carbon over different timescales, and we will continue to review best practice in this area, with input from our Environment Committee and experts in climate science.

In 2021, we continued to work with [CommuniTree](#) in Nicaragua. The project is certified by Plan Vivo and gives local farmers the opportunity to earn more through reforesting their land with indigenous trees. Providing continuous support to one community gives stability to the communities that plant trees on our behalf.

We are developing a net zero roadmap, with a focus on reducing emissions across all scopes in line with our commitment to the Business Ambition for 1.5°C campaign, led by the SBTi. We will draw up the first iteration of these plans in 2022.

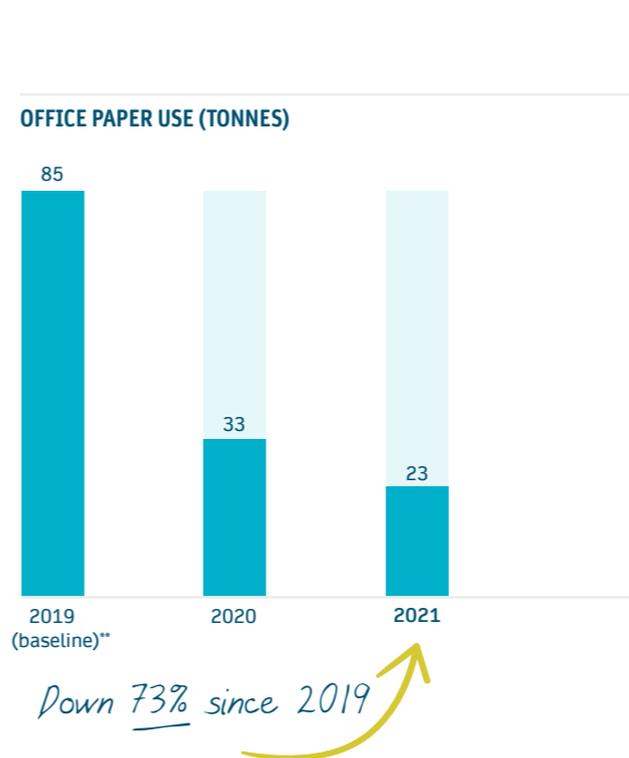
## Resource use

Decreased office use has led to ongoing low use of water and office paper, as well as low office-waste production, compared to pre-pandemic levels. We have been replacing paper invoices with e-invoices in recent years and welcome changes to mandate this in some countries. We have also continued our drive to remove or reduce plastic wrapping on books and journals that are shipped to customers, retaining this wrap only in exceptional circumstances.

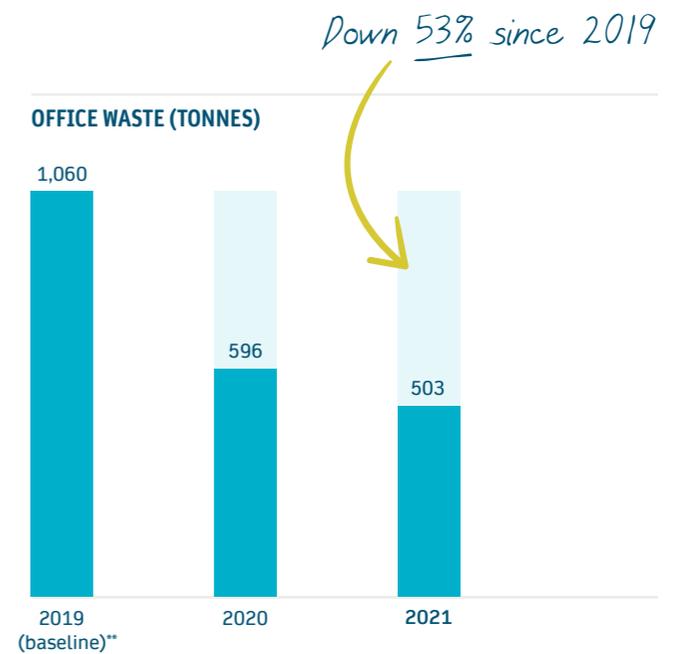


## Printed products

Increasingly, we are producing products in digital-only formats. Our printed products required 24,412 tonnes of paper in 2021, a decline of 23% since 2019 and slightly above 2020 levels. This reduction in physical products during the past two years led to a sustained reduction in shipping and printing: 13% fewer physical books and 9% fewer physical journals were shipped in 2021 compared with 2019. We have also explored optimising our supply chain to make stock movement more efficient.



We continue to increase our use of print on-demand services, which helps us to reduce overprinting. All our products are printed by third-party suppliers, and our [paper policy](#), which is shared on our website, 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 Publisher 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.



<sup>†</sup>Data in this paragraph was reviewed by our auditors – please see audit statement on [page 30](#).  
<sup>\*\*</sup>2019 baseline excludes data from SPS business (divested in December 2019).

### Sustainable paper sourcing

We collate data from our largest printers and from other sources to determine compliance with the paper policy. In 2021, compliance was 98%, level with 2020. This reflects ongoing training and outreach related to Springer Nature’s paper policy. In the few instances where paper is ungraded by PREPS, we follow an exception process and are working with vendors so that these stocks are graded by PREPS.

### Green Office Network

Our global Green Office Network of around 120 staff members helps us to identify ways we can be more sustainable. The appointed Green Office Network leads spend up to 5% of their time on network activity, such as organising meetings and progressing ideas to make our offices more sustainable. The network also runs educational events.

### SPRINGER NATURE ENVIRONMENTAL HEROES

We celebrate our colleagues around the world who are leading by example in terms of sustainability efforts. In 2021, these included the following:

- In our Shanghai office, where Springer Nature is a tenant, colleagues led a conversation with the building owner about the benefits of switching to LEDs. 70% of the lights in that office have already been changed. The reduction in site energy use once all lights are replaced is expected to be around 20%.
- In our London office, a major project to replace lighting with LEDs is scheduled for 2022, and is expected to reduce energy consumption of that site by more than 15%.
- In Heidelberg, colleagues have started a biodiversity initiative to further green the office area and improve employee wellbeing, with the addition of a pond, bird boxes and seating areas. Additional funding was approved to extend these plans during Green Week 2021.



Biodiversity initiatives at our Heidelberg offices.  
Image credit: Global General Affairs Heidelberg

# ACCELERATING SOLUTIONS



## SCIENCE FOR A SUSTAINABLE FUTURE

The 17 SDGs, ratified by all members of the UN in 2015, set out an agenda for global sustainable development. To help achieve the goals by 2030, 169 targets were set, addressing urgent societal challenges, including poverty, climate change and inequality. The world is now in the second year of the ‘Decade of Action’, a call to academia, business and policymakers to work together to address the world’s most pressing problems.

Since the SDGs were launched in 2015, Springer Nature has:

Published almost **390,000** articles or book chapters relevant to the SDGs, which have collectively been cited more than 3.5 million times.

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

Increased the volume of SDG-relevant articles we publish by around 20%.

Launched an **SDG Impact Festival** across our business to further raise awareness of the goals and recognise colleagues working on projects that support the goals.

### OUR FOCUS SDGs

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



4 Quality Education



13 Climate Action



17 Partnerships for the Goals

## OUR ROLE IN ACHIEVING THE SDGs

### Accuracy and integrity in research

As we have seen during the pandemic, public trust in research outcomes is essential. We have an important role in protecting the integrity of the research record, ensuring that it meets best practice editorial and ethical standards, and identifying errors and misconduct. When necessary, we transparently correct the published record.

The Springer Nature Research Integrity Group (SNRIG) works with authors, editors, staff, reviewers and the wider research community to maintain high editorial standards, guided by the principles of the Committee on Publication Ethics (COPE) and our own Code of Conduct for Editors. In 2021, we welcomed to Springer Nature a new Research Integrity Director, an industry and integrity specialist and former co-chair of COPE. He also chairs the governance board for a cross-industry group charged with the creation of a new platform designed to enable development of sector-wide solutions to integrity issues in manuscripts submitted for publication to scholarly journals. The platform is intended to improve publishers' capabilities to detect any research integrity issues before publication, allowing them to advance the creation of high-quality trusted research.

In 2021, the SNRIG reviewed more than 1,400 cases (from among the more than 1.4 million submissions received). The most frequently reported issues were plagiarism, duplicate submissions and publications, and problems with authorship, data, ethics and research participant consent. Where issues are confirmed, we act by publishing corrections, editors'

notes and expressions of concern, or retracting articles. Our Editorial Advisory Group works with SNRIG to ensure that policies and practices keep up to date with changes affecting research, including technology developments and ethical concerns.

Alongside publishers across the industry, in 2021 we uncovered extensive attempts to manipulate the publication process in some guest-edited issues, and have worked rapidly to retract affected articles and put in place technologies to detect similar issues in future.

### Supporting and developing the SDGs

At Springer Nature, we believe that the most significant contribution we can make towards achieving the SDGs is through our publishing activity, which helps bring to light and disseminate important knowledge related to the wide variety of issues represented within the goals.

We believe that open research plays an important role in widening access to and increasing the impact of science beyond academic circles.

In September 2021, *Nature* Editor in Chief Magdalena Skipper [addressed the science summit at the UN General Assembly](#) with a call to explicitly recognise the important role of science in combating global challenges.



### ÚNICOS: HELPING TEACHERS CREATE INCLUSIVE CLASSROOMS

We aim to help teachers in delivering the best quality of education. In 2021, Macmillan Education Iberia launched *Únicos*, a podcast series and accompanying bullet journal. Through the campaign, the goal is to support educators in managing diversity in the classroom, reduce situations that can lead to exclusion and offer practical advice and ideas for teachers.

### #BOOKSINSPIRED: STIMULATING IDEAS

The motto for UNESCO's World Book and Copyright Day 2021 was that the power of books can combat isolation, reinforce ties between people, expand our horizons, while stimulating our minds and creativity. We celebrated the day by launching #BooksInspired, a campaign aimed at highlighting research books that can also motivate and inspire. We started with a focus on SDG-related topics to draw attention to the books as a format that allows greater depth and exploration when compared with academic papers.

### CLIMATE RESEARCH IN ACTION

To highlight the importance of research in identifying climate solutions, Springer Nature launched [Climate Research in Action](#) alongside the UN climate conference, COP26. The campaign included a dedicated microsite with a compilation of the most important climate research from across the Nature Portfolio and a guide to the conference. It also featured a timeline of the [Ozone Story](#), on the scientific discovery of a hole in the ozone layer, which was first published in *Nature* in 1985 and led to the development of the [Montreal Protocol](#) in 1987. The campaign received endorsements from climate action leaders.



## OUR ROLE IN ACHIEVING THE SDGs CONTINUED

### Forging new partnerships

The SDGs have prompted Springer Nature to develop new ways of working and seek out new partnerships across our business and other sectors.

We have introduced new formats and approaches to internal collaboration, and facilitated more opportunities for our teams to connect. For example, we have focused on creating new opportunities to link research and interdisciplinary experts with those making key decisions by building on the power of brands such as *Nature* and *Scientific American*.

### Acting sustainably

We model best practice, live up to our corporate value of responsibility and learn from the research we publish by acting to minimise climate change and environmental impacts in our operations and supply chain. Examples of our efforts can be found throughout this report.

## LEARNING FROM CRISES: INSPIRING SUSTAINABLE SOLUTIONS

Over the last two years, we have seen an increase in virtual and international collaboration. In partnership with the UN Sustainable Development Solutions Network (SDSN), Springer Nature organised a series of roundtable discussions during 2021, called 'Learning from Crises: from COVID to Climate'. The dialogues brought together experts from a variety of disciplines and sectors to explore lessons that can be taken from the response to the pandemic and applied to the climate crisis.

A final event, focusing on behaviour change and inequalities, was held at SDSN's Zero Emissions Conference at COP26, with a white paper of recommendations for policymakers and practitioners due to be published later in 2022. Convening discussions such as these is a key aim of Springer Nature's SDG publishing programme.

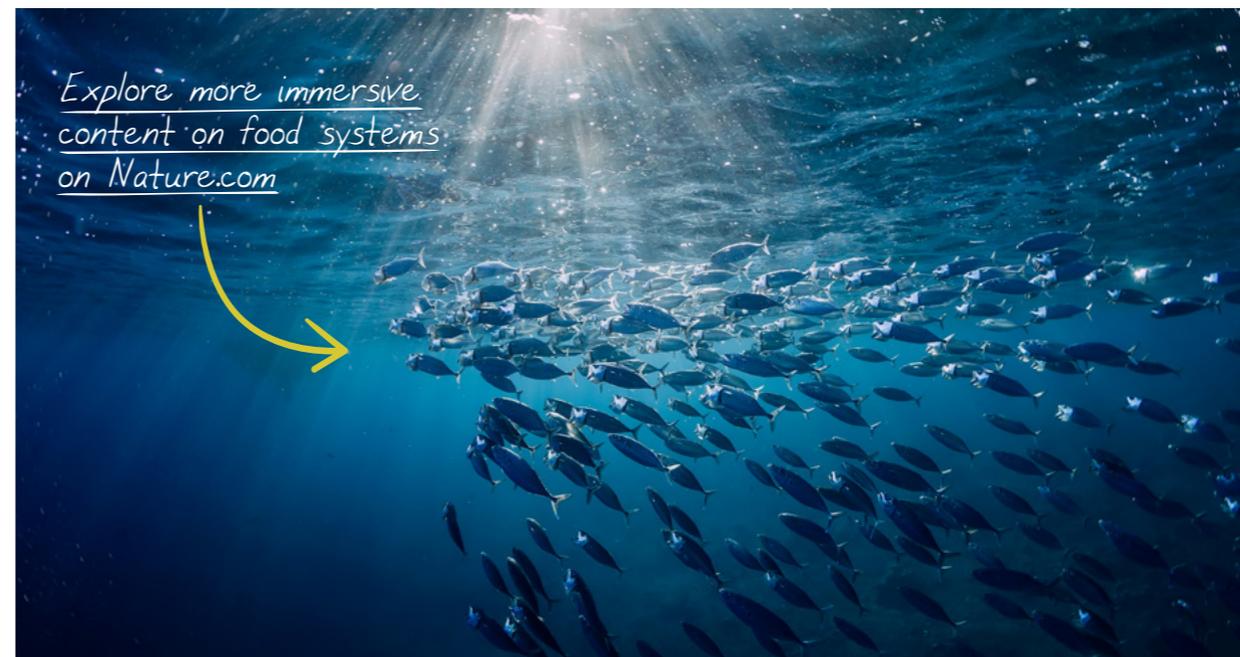
The 2021 events were part of a longer-standing partnership between Springer Nature and SDSN to advance the objectives of the SDGs. 2021 saw the second edition of the joint virtual conference: 'Science for a Sustainable Future'. This brought together policymakers, government representatives, UN officials and leading global scientists, with opening remarks from *Nature* Editor in Chief Magdalena Skipper, *Scientific American* Editor in Chief Laura Helmuth and SDSN President Jeffrey Sachs. The first event resulted in the 2021 publication of *Harnessing Science for a Sustainable Future: Narrowing the Policy, Research, and Community Divide*.

## FOOD SYSTEMS: LOOKING FOR BOLD ACTIONS

In September 2021, UN Secretary-General António Guterres convened a Food Systems Summit to launch bold new actions to deliver progress on all 17 SDGs, as each goal relies to some degree on healthier, more sustainable and equitable food systems.

We were chosen to be scholarly publishing partners to the Scientific Group at the Summit. Thanks to our advocacy, the Group broadened its discussions from a predominantly land-based dialogue to one that encompassed aquatic foods. This reflects the

outcomes of research and opinion published across our portfolio, including an article from Agnes Kalibata, UN Special Envoy to the Summit, published in *Nature Food*, a collection of opinion pieces launched for World Food Day 2021, and several *Nature* editorials. Editors from *Nature* and *Nature Food* participated actively in Science Days in July 2021, which brought together almost 2,000 experts to contribute to the Summit agenda.



Explore more immersive content on food systems on [Nature.com](https://www.nature.com)

## OPENING UP RESEARCH

### Transforming access

Springer Nature is committed to enabling immediate access to the version of record of peer-reviewed research. We believe this is the only viable and sustainable path to open science, which will, in turn, improve the speed, reproducibility and efficiency of the whole research process.

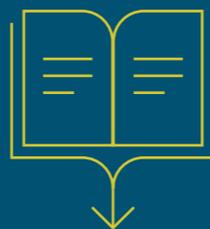
OA research is key to this vision and is an area where we continue to drive change – through commercial transition, practical approaches, technology enablement and development of suitable policies.

We have pioneered transformative agreements (TAs) as a mechanism for accelerating OA at scale since 2014. TAs enable researchers to publish immediately OA and to access more subscription articles – all under one agreement at the institution or national level.

In 2021, we signed our first TA in the Asia-Pacific region with the Council of Australian University Librarians (CAUL), a consortium that includes all 47 member universities across Australia and New Zealand. The agreement will enable CAUL members to publish their research OA in over 2,000 journals, making it CAUL's largest TA to date.

Other TAs signed in 2021 include [Egypt](#), [Canada](#), [Latin America](#), [Italy](#), [Ireland](#) and [Spain](#), plus an extended TA with the Joint Information Systems Committee (Jisc) in the UK. As OA research is cited more than subscription content, these countries are not only opening up their research but their authors are benefiting from greater reach, use and reuse of their content, meeting the expectations of researchers, institutions and funders.

### THE POWER OF OPEN ACCESS (OA)



Research shows that OA books are downloaded **10x more often** and cited 2.4 times more than non-OA books, reaching 61% more countries compared to non-OA books.



OA articles are, on average, downloaded **6x more** than non-OA articles.



OA articles also attract an average of **1.6x more** citations than non-OA across all subjects.

## OPENING UP RESEARCH CONTINUED

### Equitable OA

Sustainable OA requires its own funding, usually in the form of article processing charge (APC) payments or transformative agreements. These can be difficult to finance in lower-income countries and in some research disciplines, so Springer Nature operates an APC waiver and discount policy. In 2021, our fully OA journals waived fees of over €18.4 million to authors in financial need, including €6.6 million for articles with corresponding authors based in countries or regions on the World Bank's list of low- and lower-middle-income countries.

#### OA AT SPRINGER NATURE

Springer Nature is the most comprehensive OA publisher in the world. Our aim is that, by 2024, at least half of our publishing output will be OA.

By the end of 2021 Springer Nature had published:

**1 million+**  
OA articles

**1,600+**  
OA books

We celebrated the important million-article milestones by committing to plant 10,000 trees in the Meghalaya region of northern India.

### PROTOCOLS: SHARING SUCCESSFUL METHODS

Easy and open access to protocols and methods sits at the heart of reproducibility in open science. Access is critical to ensuring research results can be successfully replicated and research time and money not wasted. That is why Springer Nature, the world's leading publisher of protocols, launched a pilot this year with [protocols.io](#), an OA protocol and methods repository, to better understand how protocols are used by researchers in the lab. The pilot will explore the discoverability of protocols and their use and reuse in experiments, to better support researchers and advance open science and research.



### LYRASIS OPEN ACCESS SPONSORSHIP AGREEMENT

In 2021, Springer Nature signed a first-of-its-kind sponsorship agreement for OA books with LYRASIS, a US non-profit membership association of libraries, archives and museums. The agreement will provide free access to research in critical areas that support the UN SDGs through the publication of new OA book titles, focused on climate change, equity, peace and justice.

### Protecting content authorship

It is important that we protect our authors against any infringement of their intellectual property while considering the sensitivities and concerns of the research community. We proactively identify, monitor and act against potential infringements, ensuring that any threats are targeted, disrupted and, where possible, countered.

Together with other stakeholders, Springer Nature is exploring how to address the harm caused by pirate sites, such as Sci-Hub, and helping higher education establishments protect themselves against cybercrime through the [Scholarly Networks Security Initiative \(SNSI\)](#). Any concerns about online piracy or physical counterfeiting can be reported to our [anti-piracy team](#).

### Early sharing and enhanced access

The COVID-19 pandemic has demonstrated the potential benefits of making data and research more openly and routinely shareable. We actively encourage early sharing via [In Review](#), which enables authors to post their submitted manuscript on the [Research Square](#) preprint platform.

We have continued our long-term syndication partnership with professional networking site ResearchGate, the most highly used specialist platform for scientists and researchers. This partnership provides Springer Nature content directly to researchers on a major platform that they use for collaboration and networking, improving the discoverability of their work. We also work with [Seamless Access](#) and [GetFullTextResearch \(GetFTR\)](#) to support and improve institutional access to content – this was especially helpful to researchers throughout the pandemic when it was not possible to work on campus.



# SUPPORTING OUR PEOPLE

Springer Nature colleagues work around the world, across 45 countries, and are a diverse workforce whose needs and interests we actively support. We want our people to feel proud to work for Springer Nature and to live our values.

## Our values and 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 includes more on our expectation that all employees are treated fairly and respectfully*



# ENGAGING OUR TEAM

In recent years, we have evolved our values and ways of working in line with our updated mission and increased our online learning portfolio to focus strongly on virtual learning.

We have implemented a global annual performance process and launched Pulse surveys to gather regular feedback on employee engagement. Our employee-generated learning programme empowers colleagues to create their own specialist training using our internal development platform, LEAP.

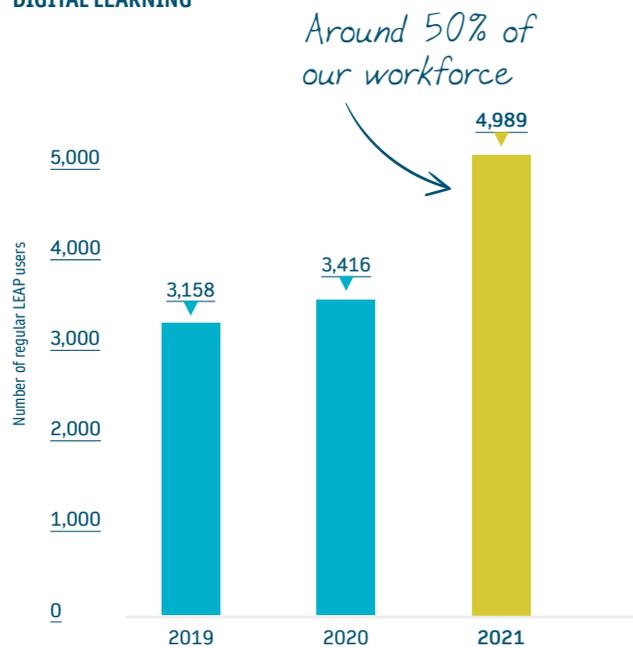
We ran our main employee Pulse engagement survey twice in 2021. Areas where scores were lower or more variable depended on the part of the business respondents came from. These areas were similar to the previous survey, and included understanding of strategy, career growth and work-life balance.

To address these themes, the executive team reviewed the allocation of training funds and encouraged all staff to take five days per year for learning and development. In 2021, we also delivered regular Q&A webinars with management to improve understanding of company strategy, and announced additional annual leave in recognition of the extra work that people have put in during the pandemic.

## INTRODUCING A NEW GLOBAL ASSISTANCE PROGRAMME

Following findings in the company's Pulse survey, the executive team were determined to keep workload and wellbeing high on their 2021 agenda. This started with more conversations between employees and managers about work-life balance, enabled by resources available through the online Global Wellbeing community. In addition, we launched a new global Employee Assistance Programme (EAP) in May 2021. The EAP offers short-term counselling as well as information and resources on emotional, financial, legal and work-life issues. The service is available 24/7 and is completely confidential and free to use for employees and their immediate family members. Progress in this area will be monitored via upcoming Pulse surveys.

### DIGITAL LEARNING



### LISTENING TO OUR PEOPLE

Highlights from the second of two surveys held in 2021

**69%**  
of colleagues participated in the latest survey

**+5,000**  
comments shared

### Scores^ from key survey areas

	November 2020	April 2021	October 2021
Our people believe <b>meaningful action</b> will be taken following the survey	<b>69</b>	<b>65</b>	<b>68</b>
Our people think they are <b>coping with the pandemic</b>	<b>77</b>	<b>74</b>	<b>76</b>
Our people support our <b>response to the pandemic</b>	<b>87</b>	<b>85</b>	<b>84</b>
Our people support our <b>pandemic communications</b>	<b>85</b>	<b>82</b>	<b>82</b>

^ Scores were calculated by converting employee responses (ratings 1–5) into points, where a rating of 1 scores zero points and a rating of 5 scores 100 points. The higher the score, the more favourable the response. It is the average of these points that is indicated in this chart.



# LOOKING AFTER OUR PEOPLE

2021 saw the implementation of a new people strategy, which has a simple aim: to make us a great company to work for. We want our workforce to feel proud to work for Springer Nature, and to develop and grow with us in the long term.

## Our people strategy

	Goal	Approach
<b>Culture</b>	Continue to drive colleague engagement and build an inspiring, inclusive and shared company culture	Cultivate continuous feedback and open communication between managers and their teams. Invest in improved communication tools, including a new platform for our intranet, Hive.
<b>Working practices</b>	Shape our future working practices	Develop new standards, focusing on our 'new normal', with virtual meetings, working from home and how we use our offices.
<b>Talent</b>	Ensure that our colleagues are equipped to continuously drive business success	Attract, hire, train and retain people with the right skills, behaviours and mindset.
<b>DEI</b>	Build an organisation where everyone can contribute at their best and thrive	Create a diverse and inclusive culture with structures that support equitable opportunities. Find out more about our <a href="#">diversity, equity and inclusion (DEI) strategy</a> on our website.
<b>Processes</b>	Improve the employee experience of all HR services	Provide more standardised, user-friendly tools and processes. Use data to review and optimise our processes, gain insights and inform business decisions.
<b>Sustainable business</b>	Deliver on our commitment to be recognised as a purpose-driven company	Make progress as a responsible business across all of our operations. Become the SDG publisher of choice.

### COMMUNICATING THROUGH CRISIS

Throughout 2021, when the pandemic continued to interrupt normal and in-person working practices, we hosted a weekly video chat and blog update from CEO Frank Vrancken Peeters. The updates presented people and priority projects from around the business, highlights from the week and progress towards our goals. Employees could also sign up for virtual coffee breaks with members of the management board, to increase visibility of senior staff members and so they could hear directly from more people in the business about their experiences and priorities. Springer Nature won an award for Best Leadership Communications at the CorpComms Awards 2021.

### ACCELERATING KNOWLEDGE: LIGHTNING TALKS

In 2021, Springer Nature created Lightning Talks to help individuals get up to speed with the topics that are important to Springer Nature's strategy, and to engage employees around our objectives. Each event includes a challenge to a senior leader to provide a summary of the topic in five minutes or less. This is followed by a panel discussion and Q&A to delve deeper into the topic – all taking place in 45 minutes. Participants can take part in whichever way suits them, depending on what their time allows, with each event recorded.

# CHAMPIONING DIVERSITY, EQUITY AND INCLUSION

## BUILDING AN INCLUSIVE CULTURE

Springer Nature is deeply committed to diversity, equity and inclusion (DEI). Our strategy has two main streams: an internal focus on what changes we can make and another external view into the communities that we are part of.

In 2021, we widened the perspective and scope of our DEI activities, increasing our focus on anti-racism and representation across the company. Using learning from our global inclusion and diversity survey, we developed and agreed a new race and ethnicity representation goal at leadership level that we will roll out across our various localities once we have worked through our ambition for local representation in the US and UK. We continue to use our survey results to inform our actions. For example, our mentoring programme has been updated and targeted at groups who, the survey told us, are underrepresented in leadership or experience lower levels of inclusion.

Gender representation continues to be an important area. In 2018, we set a target that 45% of our top three tiers of leadership should be women by 2023. We expect this figure to fluctuate over time. During 2020, we reached this target but have since dipped below, ending 2021 at 41%.†

Overall, we are making good progress: the split of men and women hired at senior levels is around 50/50, for example. However, reporting line changes mean this is not always evident in the data.

To reflect our representation goals, we will launch a new strategy focusing on equitable recruiting, promotion and succession in 2022.

### DEI at Springer Nature

#### Employee networks

Launched new governance for our 7 employee networks

**1,400**  
members

**50+**  
events organised by these networks

**34**  
local chapters

#### Our team

**1,186**  
people registered for 34 instructor-led 'Practising Inclusion' courses for employees

**62%**  
participation in brand new Springer Nature global inclusion and diversity survey

**Partnerships** with key external organisations, including [Stonewall](#), [BBSTEM](#) and [Purple Space](#)

†Data in this statement was reviewed by our auditors – please see audit statement on [page 30](#).

## BUILDING AN INCLUSIVE CULTURE CONTINUED



### LISTENING TO OUR PEOPLE: INCLUSION AND DIVERSITY SURVEY

In summer 2021, Springer Nature held its first global Inclusion and Diversity Survey to learn how all employees feel about inclusion and to support our journey to making an inclusive workplace. 62% of colleagues took part, a high participation rate for surveys of this type. We will use the results to inform our next steps, including setting new goals for race, ethnicity and international representation. The survey will now be annual, enabling us to track Springer Nature's progress towards becoming more inclusive.

### ACCESSIBILITY AND DISABILITY: THE VALUABLE 500

In 2021, Springer Nature joined the [Valuable 500](#), and committed to becoming a [Disability Confident](#) employer. We are also working to significantly increase user-experience research with participants with a disability – working towards a longer-term aim of 20% representation.

This commitment requires us to tailor our digital products to meet the needs of all of our users. As well as giving us a richer understanding of our own products, contributions from users with disabilities will help teams to empathise and understand practical needs; positively influencing design and helping spark innovation.

“With their Inclusion and Diversity Survey, Springer Nature has tried to fully understand the experiences of all its employees, including those with disabilities. Figuring out how to launch a survey like this is one of the priorities for the 500 organisations that are part of the Valuable 500 over the coming months.”  
**Caroline Casey, Founder, Valuable 500**



### BUILDING A MORE DIVERSE LIBRARIANSHIP COMMUNITY

In collaboration with Springer Nature's Asian & Pacific Islanders (A&PI) employee network, Springer Nature facilitated a partnership with A&PI and the [Asian Pacific American Librarians Association \(APALA\)](#), coordinated with senior leadership in the US to sponsor the 2021 APALA Travel Grant. This grant funded at least two APALA members' attendance at the 2021 American Library Association (ALA) Annual Conference.

“Attending such a comprehensive and general librarianship conference has greatly helped me to widen my views on academic and research libraries. It was an invaluable experience and well worth the effort to attend.”

**Hana Kim, Director, Cheng Yu Tung East Asian Library, University of Toronto and President, Council on East Asian Libraries, grant recipient**



## DEI: HOW OUR WORK HELPS OTHERS

As a global publisher, we have a responsibility to use our influence to push for positive change. We commit to championing diversity, equity and inclusion (DEI) in the communities we serve. We will 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.

We have developed an external DEI strategy for each of the three different parts of our business (research, professional and education) to ensure we serve all our communities and customers in an inclusive and fair way.

### ELEVATING BLACK EXCELLENCE

The contribution made by Black innovators and leaders to the fields of science, technology, engineering and mathematics (STEM) has not always been widely recognised. In 2021, Springer Nature's Black Employee Network launched a speaker series, available on [YouTube](#), that aims to showcase excellence, especially for those entering the research publishing and STEM sectors. Featuring speakers from partner organisations in areas related to STEM, interviewed by network organisers, the talks include discussion about their career paths, role models, mentorship and diversity.

### RESEARCH TRAINING: NATURE MASTERCLASSES

Springer Nature's Research Solutions division offers high-quality training for researchers in a number of formats, including Nature Masterclasses' live workshops and e-learning courses. Their aim is for the training offer to be intentionally inclusive, with DEI principles incorporated by design, building diverse representation into training exercises, following a sensitivity guide when creating new content, and working with accessibility experts to ensure materials are inclusive and accessible. Before joining a live workshop, participants are asked about their accessibility requirements, and trainers – whether in-house or third party – are provided with DEI resources.



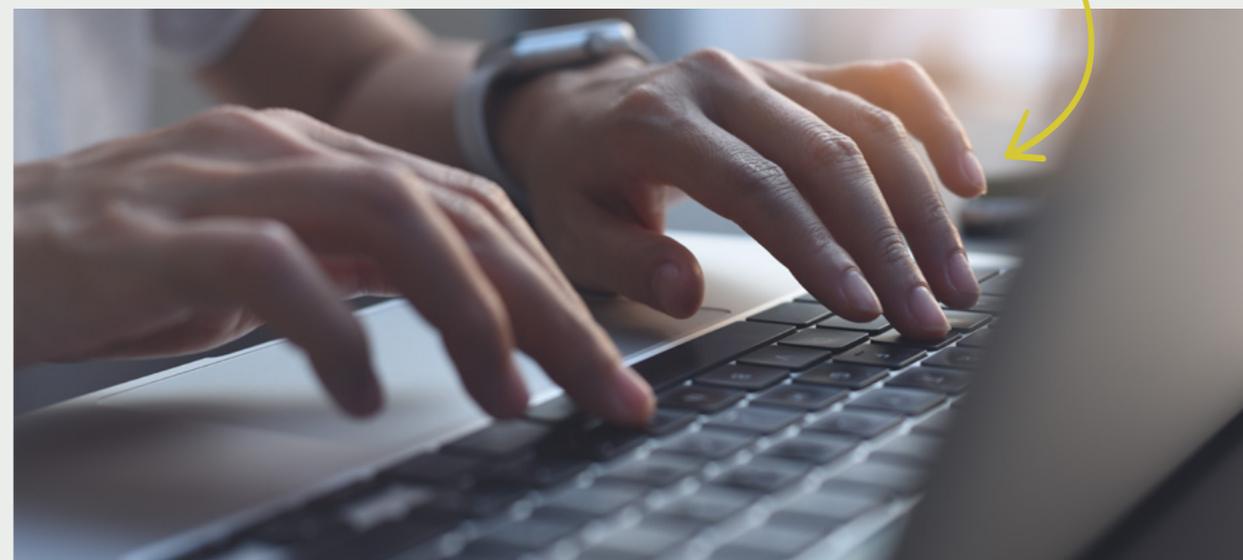
### INCLUSIVE AUTHORSHIP: OUR NEW NAME CHANGE POLICY

Transgender authors can face a lengthy and very public process, often with associated personal and professional risk, when seeking to correct their publication record. In 2021, we announced the implementation of a new policy to enable trans authors and others to correct their names on their published works.

By providing the tools and support to do this silently and safely, we aim to redress these challenges for authors and to further drive forward the elimination of these systemic barriers within the academic community.

As part of this policy, biographical information, including pronouns and author photographs, will be corrected as needed to reflect the name change. We will implement this policy across all of our scholarly journals, magazines, conference proceedings and books, as part of our continued commitment to supporting DEI and collaborating with our communities to ensure that this support enables and promotes a more equal and inclusive culture in academic research.

*Enabling authors to change their names safely*



# USING TECHNOLOGY



We believe that technology will help us to unlock the power of knowledge faster, for more people, at a lower cost and with a smaller impact on our planet. We can already see this in action: from automatically matching papers with peer reviewers to multimedia textbooks connecting to online courses and AI and machine-learning created summaries of research for individual readers.

Our partnerships and deep knowledge of our communities and how they work has enabled us to deploy advanced technologies, including AI, to improve our products and services, and better support the working practices of the research community. We develop and share technology and research solutions to advance discovery by building the skills, confidence and careers of researchers – supported through tools, products and platform development.

## In 2021, our technology enabled us to deliver:

### 2.5 million+

Our platforms SpringerLink, BioMed Central and Nature.com attract over two and a half million visits per day and over one billion downloads a year.

### 128,000+

In Review, developed in partnership with Research Square, supports early sharing of research by offering preprint sharing with journal submission. To date, more than 128,000 preprints have been shared.

### 500+

We harness technology by continuously advancing our tools for machine-generated content. In 2021, we generated more than 500 machine-generated literature overviews, provided about 100 auto-translations of book manuscripts and enabled the publication of 74 auto-translated books.

### 96,000

Nature Masterclasses Online provides training for researchers throughout their career development. In 2021, masterclasses were delivered in 52 countries, reaching around 96,000 researchers.

### 465,000+

In 2021, our digital editing service (American Journal Experts – AJE) was used on over 95,000 manuscripts, and supported more than 465,000 authors.

### ↓26%

Early analysis of Snapp, our new publishing platform, shows average turnaround times (from submission to manuscript acceptance) have decreased by 26%.

# TRANSFORMING RESEARCH PUBLISHING

The print-to-digital transition is well under way in research and education publishing. Today, most of Springer Nature's revenues (and more than 90% of research revenues) come from digital products and services. These are some examples of how we are embracing technology.

## SNAPP: SUPPORTING MORE EFFECTIVE PUBLISHING

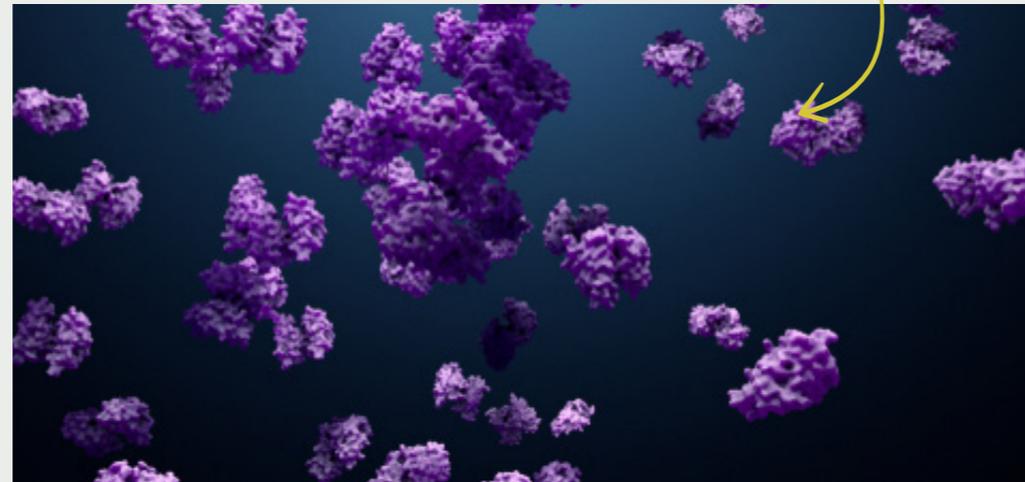
The process of publishing research can be complex and time-consuming for researchers. In 2021, we developed Snapp – a new article-processing platform that enables a more efficient and effective publishing process. Developed in-house and with input from the community, the new platform includes single-click transfers, the integration of systems for rights, waivers, payments and funding options and reviewer finding tools. It also adopts machine-learning and artificial intelligence (AI) models with the aim of streamlining and improving the entire submission-to-publishing experience, so that it is more efficient for researchers. As an in-house system, we have full control over ensuring high-quality research is published and available to our audiences quickly, fulfilling one of our key business commitments: to advance discovery.

## DEEPMIND: MAKING PROGRESS HEARD

*Nature* offers a crucial platform for amplifying cutting-edge scientific developments. For example, in 2021, *Nature* published the results from a new project by DeepMind, a company specialising in AI research and development, that determined a protein's 3D shape from its amino-acid sequence. Sequencing, a process that can take decades, will now take a fraction of that time thanks to this research: a huge scientific breakthrough

for one of biology's greatest challenges. As well as publishing these findings, Springer Nature's media outreach resulted in coverage of the research in more than 850 news stories, including the front page of *The Times*, and by BBC News, the *Financial Times*, *The New York Times* and *Wired*.

*Protein sequencing will now take less time*



## THE FUTURE OF PUBLISHING: AI-ACCELERATED DISCOVERY

The potential and promise of AI is boundless. The last few years have seen a rise in books authored by AI, which can identify the most relevant content within select publications and structure it in a logical hierarchy. Springer Nature is part of this publishing revolution, having released *Climate, Planetary and Evolutionary Sciences*, its second machine-generated book, and a literature overview, entirely driven by AI, in 2021. These AI-generated summaries, which could not be done by humans in a practical time frame, are crucial for accelerating discovery at a fast pace. They are particularly useful for readers with limited time who are looking to learn more about the subject quickly and those who are new to the topics.



## MORE ACCESS TO DISCOVERY

We value all of our users and customers equally and strive to create products that meet different needs and requirements.

Our inclusive culture drives our ambition to increase and improve accessibility across the business in all that we publish, guided by our new accessibility steering group. We are also committed to improving user experience and significantly increasing user-experience research with participants with a disability.

### BREAKING DOWN LANGUAGE BARRIERS TO BOOKS AND MANUSCRIPTS

English is widely used as the primary language for scholarly publishing, but this can disadvantage authors whose first language is not English. As a solution, Springer Nature has developed DeepL AI, which integrates auto-translation into the publishing process. This service is available for authors across all disciplines as well as for submitted manuscripts, enabling authors to translate their work from Chinese, Japanese, Spanish, Portuguese and French into English. A human check is then carried out to ensure accuracy.

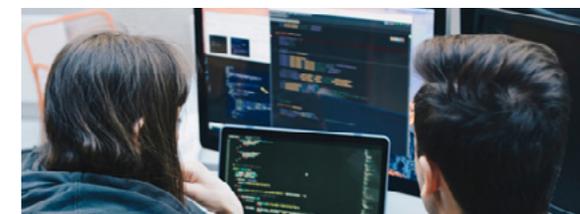
By offering this service, Springer Nature has responded to authors who found translating their content time-consuming and costly, with the aim of improving research, opening up new possibilities for authors and helping us to advance discovery.

### IMPACT ON EDUCATION IN INDIA

Changing conditions require quick adjustments to ensure that interruptions to education are minimal, as experienced during the COVID-19 pandemic. Macmillan India worked with the Foundation for Innovation and Technology Transfer (FITT) to produce an online learning solution. The result is ALTURA ('Advanced Learning and Teaching using Resources and Assessments'), a blended integrated learning solution that won the Best Classroom Tech Solution of the Year 2021 at the Ed Tech X Indian Education Awards 2021.

ALTURA helps schools enhance the academic performance of learners through continuous assessment, performance analytics and data-driven decision-making. Through ALTURA, technology has freed up teacher time, meaning greater teaching efficacy and higher engagement among learners, with a focus on learning outcomes.

*Technology has resulted in higher engagement among learners*



### REVOLUTIONISING ACCESS TO RESEARCH FOR ALL

Accessible design requires developers to make sure that their website works for a person with a disability. One approach to this is called 'regression testing', allowing developers to automatically check if they have introduced accessibility errors to their site – such as forgetting to include alternative text for images or creating problems navigating a site using a keyboard.

When Springer Nature technologists realised in 2013 that regression testing software did not exist, they decided to develop it. The software was free and open source, so anyone could use or amend it, and named Pa11y (as 'a11y' is the numeronym for accessibility).

Over the years Pa11y has steadily grown in popularity, and is now included in over 1,600 information repositories. It is also now the default accessibility testing tool in both [GitLab](#) and [Netlify](#), meaning that more than 3 million people and businesses can gain easy access to automated accessibility testing, with little effort required – greatly expanding Pa11y's reach and effect.

# ACTING ETHICALLY AND RESPONSIBLY



**Integrity is a key value for Springer Nature. We have Codes of Conduct for employees, business partners and editors. These give us the framework we need to support our values through every part of our supply chain.**

**We also recognise the significant positive impact we can have on the communities we serve. We acknowledge the need to invest in education and research in places where it is needed but may be unaffordable, with the aim of reducing the knowledge gap between higher- and lower-income countries.**

## RESPECT FOR HUMAN RIGHTS

**In our [Code of Conduct for employees](#), we set out expectations that all employees are treated fairly and respectfully. All staff must affirm their commitment to this Code annually.**

We provide our people with mandatory values and conduct training, updated each year, including modules on anti-harassment and unconscious bias. In 2021, more than 97% of employees completed this training.

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. [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.

In 2020, the pandemic and lockdown forced us to postpone several audits until 2021. In 2021, there were 30 audits in scope and 21 were completed, with a further five more due to be completed in early 2022. The remaining four are now out of scope as the companies are no longer part of Springer Nature's supply chain.

All of our relevant policies can be found on our [website](#).

## RESPECT FOR HUMAN RIGHTS CONTINUED

### Anti-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. In 2020, we reviewed our engagement with industry associations internationally, and conducted training to ensure our interactions with competitors in these forums are understood and well controlled. By the end of 2021, 220 people had attended the relevant training.

### Whistleblowing

Our employees and business partners are encouraged to raise questions or concerns as soon as possible. Authors, suppliers, editors or customers who do not wish to contact us directly can use [Speak Up](#), a confidential and independent whistleblowing system. There is more information about how to access this system on our website.

### Digital security and data protection

We aim to be a data-driven and customer-centric organisation, offering valuable services and insights. We recognise the potential risks to customers, staff and company reputation if we do not maintain secure data and systems. We have established technical and organisational measures to protect our systems, commercially sensitive information and other customer and staff data. We have also introduced new security initiatives at infrastructure and server level, and substantially invested in training our staff.

### Tax strategy

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 ended 31 December 2021 is published on our website.

2020

128

reports received

87

via Speak Up

2021

133

reports received

114

via Speak Up

## CELEBRATING LEADERS IN OUR COMMUNITIES

The **Springer Medizin Charity Award** recognises and commends organisations and initiatives that provide free healthcare and medical support to those in need in Germany. Each winner receives a prize fund, and increased visibility for their work. The winners in 2021 were:

**1st**

**peri** – an association for human rights and integration

**2nd**

**AGPD** – works to improve care of children with diabetes

**3rd**

**Soulbuddies** – an association for child and adolescent psychotherapy

“These researchers and advocates are truly pushing the boundaries of what science gets done, and who is doing this science.”

**Lisa Napolione, Senior Vice President, Global Research & Development, Estée Lauder Companies**

### Other awards

#### John Maddox prize

*Nature* with [Sense about Science](#)

#### 2021 winners

Microbiologist [Dr Elisabeth Bik](#) for her work to protect research integrity

Dr Mohammad Sharif Razai for bringing an evidence-based understanding of racial health inequalities to public and policy debates

#### Nature Research Awards for Inspiring Women in Science

With Estée Lauder Companies

#### 2021 winners

##### Science Outreach

The Parent in Science Movement for work to overcome barriers for academic parents in Brazil

##### Scientific Achievement

Biomedical entrepreneur and researcher, Kiana Aran, PhD

## SERVING RESEARCH AND EDUCATION COMMUNITIES

In delivering our vision to address urgent challenges and contribute positively to the research, education and professional communities that we work with, we partner with others and make direct contributions to align with our aims.

We are founding partners of [Research4Life](#), which offers subscription research content to scholars in low- and middle-income countries for free or at low cost and contribute actively to the organisation's work to improve equity in open access publishing (see page 16). In different parts of the world we donate textbooks, equipment and pulp for recycled paper.

### CARA: HELPING ACADEMICS AT RISK

The [Council for At-Risk Academics \(Cara\)](#) provides financial support to highly trained people from some of the world's most dangerous areas. Beneficiaries are helped to find a safe place where they can live and work, with their families, and further develop their advanced skills until they can return home to help rebuild better, safer, societies. Our donation of almost €80,000 to Cara will fund three Springer Nature-Cara Fellowship Awards over the next three years.

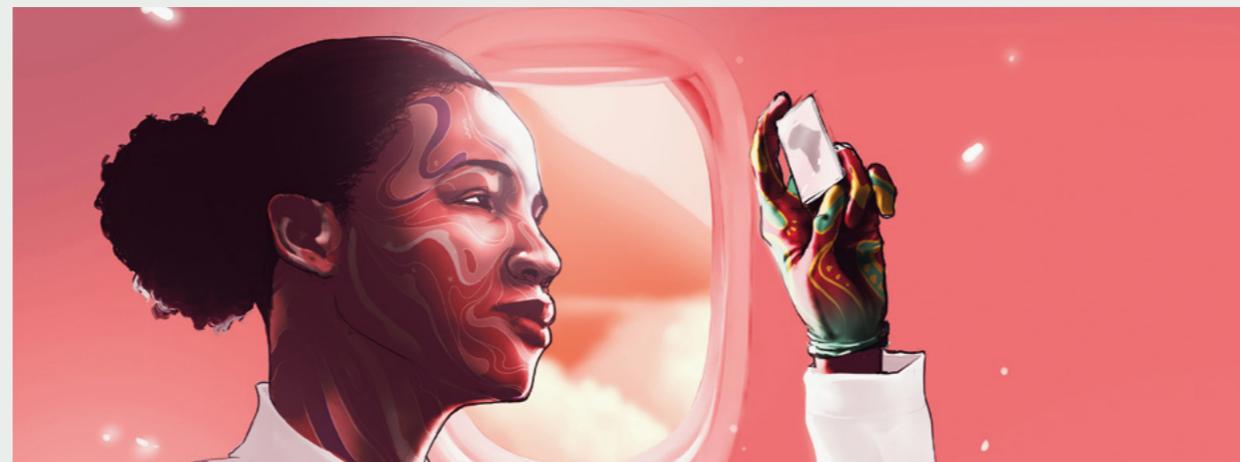
In 2021, we gave approximately €527,000 in financial donations and sponsorship to charities and organisations that align with our corporate social responsibility approach. Donations in kind are not included in this figure, and this year we gave significantly more books and other equipment to schools and charitable organisations.

In 2021, we gave approximately **€527,000** in donations and sponsorship to charities and organisations

### ENHANCING RESEARCH COMMUNICATION SKILLS

Sharing and communicating scientific discoveries is key to progress. Colleagues from *Nature* held a virtual training workshop for early career researchers across Africa in May 2021, partnering with [AfroScientric](#), a Nigeria-based non-profit that seeks to inspire more women to develop careers in STEM.

The aim was to introduce attendees to ways in which they can communicate and share their research and experiences through both peer-reviewed research and other forms of science communication. The workshop included a lively Q&A with AfroScientric founder Dr Ify Aniebo, a molecular geneticist who studies malaria resistance.



### ENCOURAGING BEHAVIOUR CHANGE



COVID-19 has made all of us more aware of the importance of handwashing. However, the need for good hand hygiene goes beyond the virus – the first Global Handwashing Day was held in 2008, involving over 120 million children in more than 70 countries, and the issue remains a critical concern in South Africa, where children are most impacted by poor hygiene.

On Global Handwashing Day 2021, Macmillan Education South Africa launched the book *Handwashing Heroes and other stories* and donated 690,000 books in five provinces. The aim of this storybook is to inspire children to become Handwashing Heroes in their own communities. The virtual launch was attended by representatives from the Department of Basic Education, Unilever and Lifebuoy, as well as subject advisers and teachers.

# APPENDIX

- 30 Independent Auditor's Limited Assurance Report
- 31 Key data
- 33 Global Reporting Initiative (GRI) content index



# INDEPENDENT AUDITOR'S REPORT ON A LIMITED ASSURANCE ENGAGEMENT

## 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 "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 2021 to 31 December 2021 (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 in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (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, in accordance with 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.

We exercise professional judgement and maintain professional scepticism throughout the assurance engagement. Our procedures also include:

- Obtain an understanding regarding the sustainability strategy, sustainability principles and sustainability management of the Company,

- Inquiries of employees responsible for the preparation of sustainability disclosures to evaluate the sustainability reporting process, the data capture and compilation methods as well as internal controls to the extent relevant for the assurance of the sustainability disclosures,
- Identification of likely risks of material misstatement of the sustainability disclosures,
- Inspection of relevant documentation of the systems and processes for compiling, aggregating and validating sustainability data in the reporting period,
- Analytical procedures at group level and on the level of selected sites regarding the quality of the sustainability disclosures,
- Evaluation of the presentation of the 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 2021 to 31 December 2021 have not been prepared, in all material respects, in accordance with 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](http://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.

Munich, 1 April 2022

**Ernst & Young GmbH**  
Wirtschaftsprüfungsgesellschaft

Nicole Richter  
Wirtschaftsprüferin  
[German Public Auditor]

Yvonne Meyer  
Wirtschaftsprüferin  
[German Public Auditor]

## KEY DATA

	2019 RESTATED WITHOUT SPS	2020	2021
<b>Economic</b>			
Revenue (€ billion) <sup>1</sup>	1.72	1.63	1.70
<b>Our research content</b>			
Proportion of journal content published immediate (gold) open access (%) <sup>2</sup>	30	33	36
Number of new OA articles published <sup>2</sup>	101,900	124,200	149,700
Number of fully OA books	923	1,250	1,671
<b>People</b>			
Number of full-time employees (headcount) <sup>3</sup>	9,753	9,522	9,133
Number of full-time employees (FTE) <sup>3</sup>	9,366	9,124	8,728
Number of employees by continent (headcount) <sup>3</sup>			
Europe	5,098	4,939	4,751
North America	1,071	1,057	1,024
Latin America	808	770	696
Asia	2,474	2,422	2,310
Africa	225	235	265
Oceania	77	99	88
Gender split – management board (% men/women)	80/20	67/33*	67/33†
Gender split – tiers one to three (% men/women) <sup>3</sup>	59/41	57/43*	59/41† <sup>4</sup>
<b>Social impact</b>			
Cash donations and sponsorship (€ thousands) <sup>3</sup>	857	624	527
<b>Compliance</b>			
Proportion staff undertaken Code of Conduct training (%) <sup>6</sup>	99	96	97

- 1 Full-year revenues for 2020 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 This data is more fully explained on [page 20](#) of this report.
- 5 These estimated figures come from Group-wide research and information taken from financial systems, and include 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.
- 6 Percentage of staff registered for relevant eLearning.

†Data in this table was reviewed by our auditors – please see audit statement on [page 30](#).

\*Reviewed by our auditors in 2020.

KEY DATA CONTINUED

	2019	2019 RESTATED WITHOUT SPS	2020	2021
<b>Environment<sup>7</sup></b>				
<b>Energy usage</b>				
Total energy use (MWh) <sup>8</sup>	31,267	27,701	22,594	20,672
Renewable energy (%) <sup>9</sup>	47	41	57	52
<b>Overview of carbon neutral target<sup>10</sup></b>				
Greenhouse gas emissions, gross (tonnes CO <sub>2</sub> e)	36,907	33,473	13,663*	8,602 <sup>†</sup>
Greenhouse gas emissions, net including RECs (tonnes CO <sub>2</sub> e) <sup>11</sup>	27,728	27,104	8,086*	4,304 <sup>†</sup>
Greenhouse gas emissions, net after offsetting (tonnes CO <sub>2</sub> e)	20,728	20,104	0*	0 <sup>†</sup>
<b>Emissions within scope of carbon neutral target<sup>12</sup></b>				
Scope 1 (tonnes CO <sub>2</sub> e)	4,847	4,298	2,960*	2,910 <sup>†</sup>
Scope 2 (tonnes CO <sub>2</sub> e)				
Location-based emissions	10,894	8,084	5,286*	4,182 <sup>†</sup>
Market-based emissions <sup>13</sup>	2,691	2,691	543*	538 <sup>†</sup>
Scope 3 (tonnes CO <sub>2</sub> e)				
Flights	19,473	19,398	4,303*	672 <sup>†</sup>
Leased building services (location-based emissions)	1,693	1,693	1,114*	838 <sup>†</sup>
Leased building services (market-based emissions) <sup>13</sup>	717	717	280*	184 <sup>†</sup>
<b>Emissions intensity (per unit of revenue)</b>				
Gross emissions per million Euros (tonnes CO <sub>2</sub> e)	21	N/A	8	5
Net emissions per million Euros (excludes offsets) (tonnes CO <sub>2</sub> e)	16	N/A	5	3
<b>Resource use</b>				
Total water usage (cubic metres)	121,790	95,495	49,399	41,090
Total site waste production (t) <sup>14</sup>	1,070	1,060	596	503
Proportion office waste separated from general waste streams (%) <sup>15</sup>	52	51	39	51
Office paper (t)	87	85	33	23
Production paper (t)	31,553	31,553	24,105	24,412
Production waste (t) <sup>16</sup>	1,762	1,762	980	2,074

- 7 2019 data is provided in two ways: as originally reported, including the SPS business which was divested in 2019, and also restated removing SPS to allow a more like-for-like comparison with 2020 data. We collect primary data for our largest sites (those with more than 100 employees). Approximately 74% of energy consumption, 76% of 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.
- 8 This figure includes energy used by sites where we have operational control, our serviced sites and major outsourced data centres.
- 9 This figure relates to both green electricity purchased directly through the electricity provider, for our sites and one major outsourced datacentre, and additional renewable energy certificates purchased via a broker for electricity used at other sites. Electricity made up a smaller proportion of our energy mix in 2021, meaning the percentage use of renewable energy fell. The relative use of natural gas rose due to cold weather and increased air exchange rates to reduce the risk of COVID-19 transmission.
- 10 In 2020, Springer Nature set a target to be carbon neutral. Scope 1 emissions include those associated with the use of stationary diesel, natural gas, fleet and refrigerant gases. Scope 2 emissions include those associated with the purchase of electricity, district heating and the use of electric vehicles. 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 63 tonnes.
- 11 For location-based emission reporting, we apply the following hierarchy of emission factors:
  1. Regional or subnational grid average where a recent factor is readily available
  2. National production figures sourced from the International Energy Agency (2021).

Factor Source	Country
Department for Business, Energy & Industrial Strategy, Greenhouse gas reporting: conversion factors 2021.	UK
The most recently published regional or subnational grid factors available from the national government.	Argentina, Australia, France, Germany, 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 (2021 edition)	All other European operations
IEA, Emission Factors (2021 edition)	All other operations

- 12 Includes supplier-sourced green electricity and purchases of additional renewable electricity certificates (RECs); excludes offsets.
- 13 Market-based emissions figures include the carbon benefits of purchasing supplier-sourced green electricity and additional purchases of RECs.
- 14 Figures relate to typical office and warehouse waste streams and exclude recycling of unsold product and damaged production paper and recycling of construction wastes.
- 15 The indicator relates to waste that has been separated for recycling, reuse, production of biofuels and composting from a sample of our largest ('core') offices. It does not include waste that has been sent to incineration (such as in energy-from-waste facilities) or landfill. Data for our largest warehouses shows these mainly have paper and packaging waste, which is sent for reuse and recycling. Several recycling systems remained suspended/partially suspended in 2021 due to COVID-19.
- 16 Due to a warehouse move at the end of 2020, a large volume of outdated titles were cleared, leading to a significant increase in this scrappage figure. Unsold product and unusable production paper is recycled.

<sup>†</sup>Data in this table was reviewed by our auditors – please see audit statement on page 30. \*Reviewed by our auditors in 2020.

## GLOBAL REPORTING INITIATIVE (GRI) CONTENT INDEX

We use the GRI framework as a reference for our reporting. We believe this is the most appropriate approach for communicating effectively with our stakeholders. This table can be used to find key environmental, social and governance (ESG) information, organised by the associated GRI indicator.

GRI INDICATOR	DESCRIPTION	DETAIL
102-1	Name of the organisation	Springer Nature Group
102-2	Activities, brands, products and services	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. <a href="https://group.springernature.com/gp/group/about-us">https://group.springernature.com/gp/group/about-us</a> provides further overview of business areas and brands.
102-3	Location of headquarters	Registered office: Heidelberger Platz 3 14197 Berlin Germany
102-4	Location of operations	Springer Nature has offices in around 45 countries. In 2021, our largest markets by number of employees were India, Germany and the UK. Please see <a href="https://group.springernature.com/gp/group/about-us/locations-contact">https://group.springernature.com/gp/group/about-us/locations-contact</a>
102-5	Ownership and legal form	Please see <a href="https://group.springernature.com/gp/group/about-us">https://group.springernature.com/gp/group/about-us</a> and <a href="https://group.springernature.com/gp/group/about-us/corporate-governance">https://group.springernature.com/gp/group/about-us/corporate-governance</a>
102-6	Markets served	The content we publish is available in more than 180 countries. For further information on the sectors we serve, please see <a href="https://group.springernature.com/gp/group/about-us/research-business">https://group.springernature.com/gp/group/about-us/research-business</a> <a href="https://group.springernature.com/gp/group/about-us/education-business">https://group.springernature.com/gp/group/about-us/education-business</a> <a href="https://group.springernature.com/gp/group/about-us/professional-business">https://group.springernature.com/gp/group/about-us/professional-business</a>
102-7	Scale of the organisation	As at 31 December 2021: Springer Nature employed 9,133 (headcount) people and 8,728 FTE people. In 2021, we handled more than 1.4 million article submissions and published more than 400,000 articles across almost 3,000 journals and around 13,000 books. We have published more open access research than any other publisher. Our content platforms were visited more than 2.5 million times every day.

## GLOBAL REPORTING INITIATIVE (GRI) CONTENT INDEX CONTINUED

GRI INDICATOR	DESCRIPTION	DETAIL
102-8	Information on employees and other workers	<p>Please see <a href="#">pages 17–22</a> of this report.</p> <p>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.</p>
102-9	Supply chain	<p>As a global business, Springer Nature has an international supply chain.</p> <p>Direct goods and services include: global production (pre-press, print, paper) and global distribution (transport and shipping, postage, warehousing and logistics).</p> <p>Indirect goods and services include: IT (hardware, software, services, fixed/mobile telecoms), marketing, travel and events, external agencies and communications, auditing, consulting/outsourcing/offshoring.</p>
102-10	Significant changes to the organisation and its supply chain	In 2021, Springer Nature made some changes to its asset portfolio. These are not considered material for the data in this report.
102-11	Precautionary Principle or approach	Our identification and management of our key sustainability risks is informed by the latest science, and we support a precautionary approach to environmental challenges.
102-12	External initiatives	Key external initiatives that we engage with, as relevant to our ESG impacts include: BookChain Project, Coalition for Diversity and Inclusion in Scholarly Communications (C4DISC), Charta der Vielfalt, the Climate Pledge, CLOCKSS, Committee on Publication Ethics (COPE), the International Chamber of Commerce UK Committee on Corporate Responsibility and Anti-Corruption Policy, the Joint Commitment for Inclusion and Diversity in Publishing, Klimaretter-Lebensretter, Knowledge Quarter, the Publishers Association’s Inclusivity Action Plan and Sustainability Taskforce, Research4Life, Research on Research Institute (RoRI), the San Francisco Declaration on Research Assessment (DORA), SDG Publishers Compact, Scholarly Networks Security Initiative (SNSI), Stonewall UK Diversity Champions, The Transparency Forum (hosted by the UK’s Health Research Authority), UK Reproducibility Network (UKRN), Urban Partners for King’s Cross, Euston and St Pancras, Valuable 500.
102-13	Membership of associations	<p>This non-exhaustive list includes associations that are important for Springer Nature to represent company interests and where our staff take a leading role.</p> <p><b>Research Division:</b> Association of Learned and Professional Society Publishers (ALPSP), Associação Brasileira de Editores Científicos (ABEC), Börsenverein des Deutschen Buchhandels, CHORUS, Crossref, De Mediafederatie, National Information Standards Organization (NISO), Open Access Scholarly Publishers Association (OASPA), ORCID, the Publishers Association, Research4Life, SNSI, Society for Scholarly Publishing (SSP), STM.</p> <p><b>Education Division:</b> Association of Publishers – India, Cámara Argentina del Libro, Cámara Nacional de la Industria Editorial, Confederation of Indian Industry, Publishers Association of South Africa (PASA), Polish Chamber of Books, Egyptian Publishers Association.</p> <p>In addition, parts of our <b>Professional Division</b> are members of relevant associations to their markets in Germany, France, the Netherlands and Austria.</p>

## GLOBAL REPORTING INITIATIVE (GRI) CONTENT INDEX CONTINUED

GRI INDICATOR	DESCRIPTION	DETAIL
102-14	Statement from senior decision maker	See <a href="#">page 3</a> of this report.
102-16	Values, principles, standards and norms of behaviour	See <a href="#">pages 26–28</a> of this report and Springer Nature’s Code of Conduct: <a href="http://www.springernature.com/codeofconduct-EN">www.springernature.com/codeofconduct-EN</a>
102-18	Governance structure	<a href="https://group.springernature.com/gp/group/about-us/corporate-governance">https://group.springernature.com/gp/group/about-us/corporate-governance</a> Also see <a href="#">page 5</a> of this report.
102-40	List of stakeholder groups	Our materiality matrix captures issues raised by stakeholder groups including the research community, authors, editors, librarians, research funders, employees and investors.
102-41	Collective bargaining agreements	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 5 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.
102-42	Identifying and selecting stakeholders	We define our stakeholders as those parties who can have an impact on our business or who are impacted by our business. 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 engage actively with these groups.
102-43	Approach to stakeholder engagement	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: <ul style="list-style-type: none"> <li>• We engage with our global workforce through our annual Pulse engagement survey (see <a href="#">page 18</a> of this report). Please also see GRI 102-41.</li> <li>• We engage with institutions, researchers and educators mainly at conferences, client meetings, via editorial boards, library advisory boards and other events.</li> <li>• 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.</li> </ul>

## GLOBAL REPORTING INITIATIVE (GRI) CONTENT INDEX CONTINUED

GRI INDICATOR	DESCRIPTION	DETAIL
102-44	Key topics and concerns raised	<p>Examples of topics raised by key stakeholders:</p> <p><b>Institutions, researchers and educators:</b></p> <ul style="list-style-type: none"> <li>• Accelerating solutions to urgent societal challenges.</li> <li>• Opening up research.</li> <li>• Research integrity.</li> <li>• Using technology to advance discovery and learning.</li> <li>• Championing diversity, equity and inclusion in our communities.</li> <li>• Living our values.</li> </ul> <p><b>Employees:</b> Employee engagement.</p> <p><b>Shareholders:</b> Shareholders require us to report ESG data annually.</p> <p>See <a href="#">page 5</a> of this report for our full list of material issues.</p>
102-45	Entities included in the consolidated financial statements	<p>Reporting covers entities that are part of Springer Nature Group: Springer Nature AG &amp; Co. KGaA and its subsidiary companies. It is referred to through this report as ‘Springer Nature’, ‘the company’ or ‘the organisation’.</p> <p>Please see <a href="https://group.springernature.com/gp/group/about-us">https://group.springernature.com/gp/group/about-us</a> for more information.</p>
102-46	Defining report content and topic Boundaries	<p>We define the content of our reporting based on the process outlined in GRI 101, applying the principles of stakeholder inclusiveness, sustainability context, materiality and completeness. Issues are identified and prioritised based on stakeholder engagement during the year, sustainability concerns raised in wider society (influence on stakeholder decisions) and the concerns of expert communities and the results of impact assessment (significance of economic/social/environmental impacts). The matrix is reviewed and approved by the Culture, Values and Community Committee.</p> <p>Due to the nature of our business, many of our material impacts are indirect, occurring in our supply chain or through the use of our content. We consider our whole value chain when defining the boundaries of each material issue.</p> <p>Please see <a href="#">page 5</a> of this report.</p>
102-47	List of material topics	Please see <a href="#">page 5</a> of this report.
102-48	Restatements of information	To ensure fair comparison of data year-on-year, we restate figures from previous years if there is a significant change to our data gathering processes, methodology or estimation approach. In the data table on <a href="#">page 32</a> , 2019 environmental data is shown in two ways, both with data relating to SPS, a business we sold in 2019, and without it, to enable easier like-for-like comparison.

## GLOBAL REPORTING INITIATIVE (GRI) CONTENT INDEX CONTINUED

GRI INDICATOR	DESCRIPTION	DETAIL
102-49	Changes in reporting	Assets and employees of the SPS business, which was sold at the end of 2019, are no longer included in our data.
102-50	Reporting period	Calendar year 2021
102-51	Date of most recent report	Springer Nature's report covering calendar year 2021 was published in April 2022. Our previous report was published in April 2021, covering calendar year 2020.
102-52	Reporting cycle	Annual
102-53	Contact point for questions regarding the report	Enquiries can be sent to the Sustainable Business team at <a href="mailto:communications@springernature.com">communications@springernature.com</a> or to Corporate Affairs, Springer Nature, The Campus, 4 Crinan Street, London N1 9HW.
102-54	Claims of reporting in accordance with the GRI Standards	We believe that providing a GRI-referenced report is the most appropriate approach for communicating effectively with our stakeholders at this time.
102-55	GRI content index	<a href="#">Pages 33–40</a> of this report
102-56	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 <a href="#">pages 8–10</a> of this report and the data table on <a href="#">pages 31–32</a> with † in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised). Their full statement can be read on <a href="#">page 30</a> of this report.

## MATERIAL TOPICS

MATERIAL TOPIC	GRI INDICATOR	DESCRIPTION	DETAIL
All	103-1	Explanation of the material topic and its Boundary	See <a href="#">page 5</a> of this report for an explanation of our material issues. Unless stated otherwise, the reporting boundary applied to economic issues is Springer Nature Group. For environmental issues, it is all Springer Nature operations worldwide (fleet, offices, warehouses, business flights), and for labour issues, it is all Springer Nature employees worldwide.
All	103-2	The management approach and its components	See <a href="#">page 5</a> of this report for an overview of how we manage our material issues. Details of relevant policies, commitments, targets and activities are given by topic on <a href="#">pages 6–28</a> of this report. Details of responsibilities, resources and grievance mechanisms, where this differs from the overall approach outlined elsewhere in this report, are given per material issue in this content index.
All	103-3	Evaluation of the management approach	See <a href="#">page 5</a> of this report for an overview of how we evaluate progress on our material issues. Any variation in approach for a particular material issue is stated by topic on <a href="#">pages 6–28</a> of this report.

## GLOBAL REPORTING INITIATIVE (GRI) CONTENT INDEX CONTINUED

### MATERIAL TOPICS CONTINUED

MATERIAL TOPIC	GRI INDICATOR	DESCRIPTION	DETAIL
Diversity in the research community and accelerating solutions to SDGs	203-2	Significant indirect economic impacts	<p>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.</p> <p>We have a specific focus on research for the SDGs, supporting sustainable development.</p> <p>Please see <a href="#">pages 12–14</a> of this report.</p>
Anti-corruption	205-1	Operations assessed for risks related to corruption	<p>We regularly assess all Springer Nature operations for risks related to corruption. We engage in sales to governments and institutions funded by governments and NGOs in both our Research and Education divisions. This includes working with curriculum development, the submission of our products to government authorities for approval and submissions to tender processes.</p> <p>We issue specific training relating to these activities in addition to including anti-bribery and anti-corruption as a topic in our all-staff training. Please see <a href="#">pages 26–27</a> of this report for information about the Code of Conduct and training.</p>
Anti-competitive behaviour	206-1	Anti-competitive behaviour	<p>Following the decision of the Spanish Competition Authority (Comisión Nacional de los Mercados y la Competencia, CNMC), as outlined in our 2019 Responsible Business report, we have identified relevant staff and rolled out training regarding cooperation via publishers associations.</p>
Product/ packaging materials	301-1	Materials used by weight or volume	<p>The tonnage of paper used to produce our printed products is reported on <a href="#">page 10</a> 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. See <a href="#">page 10</a> of this report for our work on reducing the impact of product packaging.</p> <p>We do report production waste generated from our warehouses, which includes spoiled printing papers, unsold product and any packaging applied by our suppliers which is removed at our warehouses. Data for our largest warehouses shows this paper is sent for recycling.</p> <p>At the site level, we track the usage of inputs that may be locally significant, including office paper and drinking/sanitation water use and waste generated (see <a href="#">page 10</a> of this report).</p>
Climate impacts	305-1	Direct (Scope 1) GHG emissions	<p>Please see <a href="#">pages 8–10</a> and <a href="#">31–32</a> of this report.</p>

## MATERIAL TOPICS CONTINUED

MATERIAL TOPIC	GRI INDICATOR	DESCRIPTION	DETAIL
	305-2	Energy indirect (Scope 2) GHG emissions	Please see <a href="#">pages 8–9</a> and <a href="#">pages 31–32</a> of this report.
	305-3	Other indirect (Scope 3) GHG emissions	Please see <a href="#">pages 8–9</a> and key data table on <a href="#">page 32</a> of this report.
	305-4	GHG emissions intensity	Please see key data table on <a href="#">page 32</a> of this report.
	305-5	Reduction of GHG emissions	Please see <a href="#">pages 8–9</a> and key data table on <a href="#">page 32</a> of this report.
	305-6	Emissions of ozone-depleting substances (ODS)	We report fugitive gas emissions in tonnes of CO <sub>2</sub> equivalent under our scope 1 reporting ( <a href="#">page 39</a> of this report).
Workforce health and safety	403-6	Promotion of worker health	Our global health and safety policy governs our management of both mental and physical health risks. As our workplaces are primarily office-based, ergonomics and wellbeing are the primary concerns. We already have extensive procedures in place to identify risks to employee health and safety, and to reduce these risks to the lowest level we can. These are kept under constant review, and supported by a health and safety management system that records incidents across our sites. Information is reported regularly to senior management to consider any trends or actions that may be required to reduce reoccurrence. Health and safety training is mandatory for new staff, and is a component of the annual values and conduct training modules for all colleagues. The accident frequency rate in the locations where it is reported is 2.05 per million hours worked.
	405-1	Diversity of governance bodies and employees	By 2023, we are aiming for 45% of employees in the top three tiers of the organisation to be women. See <a href="#">page 20</a> of this report for reporting against this target and other initiatives. We do not report age diversity data, nor gender diversity data for other employee categories, as this data is held at the local level and in some cases subject to confidentiality constraints. Please see the key data table on <a href="#">page 31</a> .
Labour standards	414-2	Negative social impacts in the supply chain and actions taken	Please see our Modern Slavery Statement 2021 on this page: <a href="http://www.springernature.com/modernslaveryactstatement-EN">www.springernature.com/modernslaveryactstatement-EN</a>
Data privacy and security	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Springer Nature has not received any substantiated complaints relating to customer or employee privacy this year.
Opening up access to research			Springer Nature has published more open access research than any other publisher – more than one million articles in total, by end of 2021. Our approach is outlined on <a href="#">page 15</a> of this report and the metrics in the key data table on <a href="#">page 31</a> of this report.

## MATERIAL TOPICS CONTINUED

MATERIAL TOPIC	GRI INDICATOR	DESCRIPTION	DETAIL
Accelerating solutions to the SDGs			Please see <a href="#">pages 12–14</a> of this report.
Diversity in the research community			Please see <a href="#">pages 20–22</a> of this report.
Responsible editorial policies/ Safeguarding research integrity			Please see <a href="#">page 13</a> of this report.
Tax			Please see our tax strategy disclosure at <a href="http://www.springernature.com/taxstrategy-EN">www.springernature.com/taxstrategy-EN</a>
Author rights			Policies related to author rights are covered in detail on our website at <a href="https://www.springernature.com/gp/open-research/policies/journal-policies">https://www.springernature.com/gp/open-research/policies/journal-policies</a>
Content piracy/ intellectual property			Please see <a href="#">page 27</a> of this report.

You can read an online version of this report, download a PDF and discover more about responsible business at Springer Nature at <https://sustainablebusiness.springernature.com/2021>

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