



2023 Accelerating Climate Action Report

An update on our journey towards a net zero future



ELSEVIER

Continued progress

The urgency of the climate crisis compels each and every one of us to do our part to understand our impact on climate change, act, and advocate for a sustainable future. At Elsevier, we have been working intentionally for over a decade to reduce our carbon impact. Our dedicated [Climate Action Program](#) guides us as we accelerate progress towards our commitment to become net zero for all direct and indirect emissions by 2040 at the latest. We are committed to being transparent about our journey as we learn, adapt, and scale our actions and activities, guided by an independent [Climate Advisory Board](#). In our progress report, we set out the key insights and the steps we have taken in 2023.

- [Find out more about our Climate Action Program](#)
- [Meet our Climate Action Advisory Board members](#)
- [Read our 2022 Climate Action Report](#)





2023 in numbers:

74% reduction in direct emissions (Scope 1 and Scope 2 Location based emissions) and an over 50% reduction in business air travel since 2019 baseline.

Focused on energy savings, relocating our Oxford office as part of our wider actions to consolidating space and optimising lighting and energy use, saving an estimated **180T CO₂e**. Our Oxford and London offices also participated in Earth Hour, that encourages businesses to turn off non-essential electric lights.

73% of our Elsevier top suppliers, based on eligible spend, have been onboarded into our Supplier Carbon Reduction Program.

Saved an estimated **820,000kg CO₂e** by introducing print free exhibitions and empowering readers to opt for e-version instead of print copies.

>1200 preprints have been added to our SSRN biodiversity hub to complement Elsevier's first Biodiversity focused report: Biodiversity research in the Netherlands and worldwide.

17 curated collections featured on RELX SDG Resource Centre supporting awareness campaigns such as Earth Day and World Environmental Day.

8% increase in article submissions that support a clean energy future across our whole energy journal portfolio.

Cell Press hosted **3 virtual sustainability forums**, convening top experts to discuss emerging sustainability topics such as Meeting the Paris Agreement goals: Where are we and where do we need to head?

Launched a proof of concept that generated the first machine written policy brief on the topic of Lithium battery supply in Europe, utilizing **18,000 full text scientific articles** to explore how to strengthen the bridge between science and policy.

15 publishing industry leaders and carbon experts collaborated on the first methodology to account for the carbon impact of print books as part of the Publishing 2030 Accelerator.

The Lancet Countdown 2023 Report tracks the relationship between health and climate change across five key domains and **47 indicators**, providing the most up-to-date assessment of the links between health and climate change.

We continued to grow our portfolio of journals supporting climate change research and renewable energy. In 2023, we had 160 journals dedicated to environmental sciences, renewable and clean energy.

2023 Elsevier Performance

Environmental Performance

Elsevier’s [environmental policy and science-based carbon reduction targets](#) are set by our parent company, RELX, with overall progress and performance reported in the RELX annual report. Targets cover broader environmental impacts, such as energy and waste, with a prioritization of carbon reductions. The specific performance of Elsevier’s progress against RELX environmental targets is assured by EY. Further information on our Climate Action Program structure and governance can be found in the [2022 Climate Action Report](#).

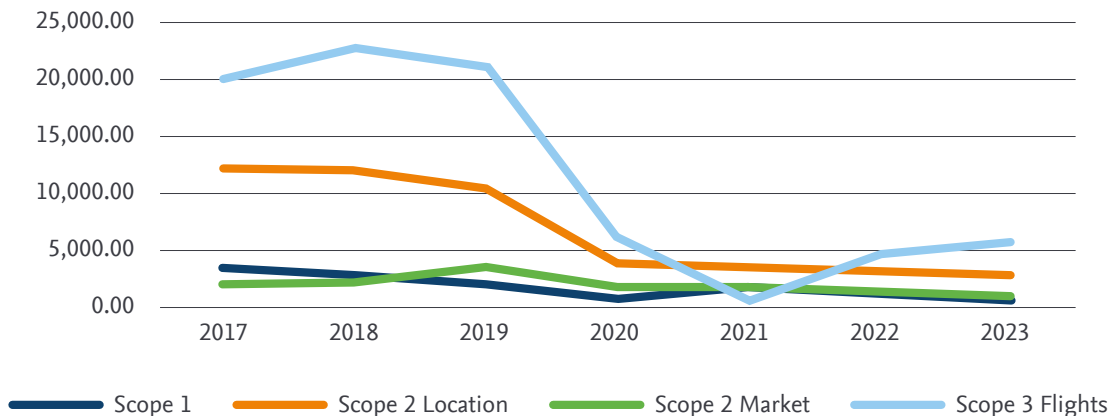
Elsevier’s Carbon footprint

At Elsevier, we have reduced our direct emissions (Scope 1 and Scope 2 location-based emissions) by 74% since 2017. We have a Scope 3 target to reduce air travel emission by 50% from a 2019 baseline. To date we have exceeded this target and continue to implement responsible travel principles.

We use an holistic approach to evaluating our products’ emissions across the entire supply chain, going beyond just looking at direct suppliers to better understand the emission categories that must be addressed in our net zero transition. We have updated this evaluation, incorporating new data and continuing to use assumptions where granular data is not yet available. In 2023, the biggest emission category remained physical books and journals (30% of total Elsevier emissions), although we have seen a decrease in these emissions as journals transition to e-only and we implement changes such as print-free exhibitions. Digital emissions are included as part of IT infrastructure, and account for 10%.

Elsevier Absolute Environmental Performance				
	2023	2022	2017 Baseline	Reduction % since 2017
Scope 1 (Direct emissions) tCO2e	1,075	1,302	3,352	68%
Scope 2 (Location-based emissions) TCO2e	2,909	3307	12,042	76%
Scope 2 (Market-based emissions) TCO2e	1,283	1,409	2,238	43%
Scope 3 CO2e Flights	5,172	4,497	19,802	74%
Total energy (MWh)	10,953	11,423	26,627	59%
Water	22,116	26,066	71,583	69%
Waste sent to landfill (t)	22	37	208	89%

Elsevier tCO2e Emissions



Key Insight 1: Changing our behaviour drives down emissions

We have been working to reduce our environmental impact for over a decade, in areas such as office energy use, business travel and operations. We created a baseline in 2022 to track progress and have found that by changing workflows, processes and “business as usual” we can generate emission savings. Examples include:

- **“Right sizing”, adjusting to the impact of remote working:**
In 2023, all office locations continued to hold a certificate to the ISO 14001:2015 standard for environmental management system. Key initiatives in 2023 have been to adjust to lower occupancy rates seen across all locations since the COVID pandemic. With a focus on consolidating space, we have both downsized our offices, and reduce our carbon emissions by adjusting lighting and heating schedules accordingly. For example, we relocated our office at Kidlington, Oxford moving to a new space saving an estimated 180 tCO₂e from energy use. We also consolidated our office space in London, Amsterdam, and New York.
- **Sustainable travel:** In 2021 our business travel accounted for an estimated 20% of our global footprint and we set the ambitious target to reduce air travel by 50% compared to a 2019 baseline. With a focus on both utilizing virtual alternatives and mindful travel principles, we have in 2023 more than halved this emission category versus 2019. Additionally, all our business travel is covered by an internal carbon price of \$35 CO₂e which is used to purchase verifiable offsets in 2023 encompassing REDD+ forestry and peatland projects in Colombia and Indonesia. We do not use offsets in our carbon performance reporting.
- **Informing more sustainable choices in academic conferences:**
In 2023, we calculated the carbon impact of five [Elsevier-organized academic conferences](#). Working closely with [RX](#), another RELX company and co-founder of the net zero carbon events initiative, the conferences carbon model helped understand the drivers behind carbon emissions of conferences and empower the team to integrate sustainability into their choices of venue, catering, transportation, and travel.
- **Reduce, Recycle and Reuse:** Fostering a sustainable mindset is key to getting everyone on board with climate action. In 2023, we helped address our broader impact on the environment by introducing reusable cups both on our office floors and in the onsite café in Amsterdam, eliminating one-time usable straws and cutlery in India and refreshing our recycling systems in Paris, reducing the need for bin liners by 50% while increasing recycling rates by 30%.

Accounting for the carbon impact of print:

In 2023, Elsevier measured the carbon impact of print in over 2,000 proprietary and society owned journals to create key insights to drive emission reductions. We continued to reduce print by introducing “print-free exhibitions” providing digital copies of journals rather than complementary print versions. We also empowered our readers to opt in to receive an e-version of their preferred journal. Collectively these actions helped save 820,000kg CO₂e.

Key Insight 2: We can't get to net zero alone

To become net zero, Elsevier must work alongside many other stakeholders and within the communities we serve to help better understand and account for carbon impacts and take collective action.

- **Suppliers:** We have launched our Supplier Carbon Reduction Program to align and support our net zero targets. This program aims to collaborate with our suppliers and empower them to set and report on carbon emission targets and collectively work towards reducing carbon emissions by 50% by 2030. We have now onboarded 73% of our top Elsevier suppliers, to report their carbon emissions through [CDP](#), a not-for-profit global disclosure system for carbon reporting.
- **Convening industry carbon experts:** As part of the [Publishing 2030 Accelerator](#), our experts have convened publishing industry and carbon experts to publish the first whitepaper to detail the methodology for accounting for carbon in print books. This unique collaboration lays the foundation for possible industry standards for individual carbon reporting for books across the industry worldwide.
- **Supporting climate action and gender equality:** In a collaboration between the [Elsevier Foundation](#), a non-profit funded by Elsevier, and Elsevier's flagship chemistry journals, the Climate Action Challenge awarded two prizes of €25,000 for innovative, concrete, and scalable climate action solutions with a focus on also achieving gender equity. [Read more here.](#)
- **Convening sustainability experts in publishing:** Elsevier worked closely with the London Book Fair to launch a new sustainability hub, a dedicated space within the London Book Fair programming to highlight and share best practise around sustainability in publishing. Additionally, Elsevier also launched the first carbon label for their Elsevier stand at the fair. [Read more here.](#)

Advocating for climate action in health:



Ahead of COP28 in December 2023, *The Lancet* published the [2023 report of the Lancet Countdown on Health and Climate Change](#), which revealed the grave and mounting threat to health of further delayed action on climate change, with the world likely to experience a 4.7-fold increase in heat-related deaths by mid-century, and also highlighted how climate inaction is costing lives and livelihoods today with 47 indicators. A week later, *The Lancet* also published [Pathways to a healthy net-zero future: report of the Lancet Pathfinder Commission](#), which highlights examples of actions with measured climate and health benefits, showing the potential for win-win solutions if taken up at scale.

A [Comment](#) published in *The Lancet* in the days before COP, from authors including those on both the Countdown and Pathfinder reports, warned that the first-ever Health Day at the COP would only be a substantial step forward for advancing health-centred climate change if the first climate health ministerial meeting actually delivered meaningful action to protect people's health, with a focus on mitigation as well as adaptation.

Key Insight 3: Science and research underpin the global transition to net zero

Scientific discourse, based on peer-reviewed research and data-led insights, has generated significant advances in both cleaner and renewable energy and makes a positive environmental contribution by informing debate, aiding decision makers, and encouraging further research and development.

- **Accelerating clean energy research:** In our journals and books we continue to attract and commission quality content on research topics that support a clean energy future. In 2023, we had an 8% growth in submissions across the energy mix, ranging from renewable and sustainable energy solutions to studies that examine ways to make traditional forms of energy, like hydrocarbons, cleaner and more efficient. We also launched new titles and published dedicated editorial and news items to accelerate clean energy focused submissions.
- **Better connecting science to policy:** Society's ability to act on urgent issues such as addressing climate change, will rely on the effectiveness of evidence-based policy making. Generative AI can play a role in helping create synoptic science used by knowledge brokers and scientific advisors. Elsevier has developed a proof of concept, generating the first machine written policy brief on Lithium battery supply in Europe, utilizing over 18,000 full text articles.
- **Stimulating sustainability science:** Our journals and books provide important forums for researchers and experts to discuss sustainability and climate related issues. Last year, Cell Press

convened top sustainability experts for three dedicated virtual events focused on topics such as tracking progress against the Paris Agreement goals. We also launched a new open access journal, Cell Reports Sustainability, joining our flagship Cell Press journals One Earth and Joule.

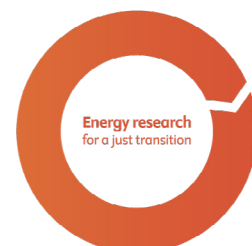
- **Nature takes the spotlight:** Climate change is a cross cutting topic. Understanding climate change and driving progress towards a net zero future has increasingly focused on the role and relationship between nature, biodiversity and our climate ambitions. Elsevier works with RELX to host annual SDG Inspiration Days, the latest being Not too late for Nature, with Jane Goodall and Ban Ki-moon as keynote speakers. We have also published the first biodiversity research insights report for the Netherlands, Biodiversity research in the Netherlands and worldwide, demonstrating the need for data to help institutions understand the impact of collaboration, publication and connecting to policy. Additionally, SSRN, a preprint server, launched a dedicated topic hub on biodiversity hosting over 1,200 preprints. The supporting ejournal has helped create a dedicated biodiversity community with an open rate of 49% for the weekly alerts.

Supporting the renewable energy transition:

Aligning our existing energy portfolios and products to better support the renewable energy transition is an important focus for Elsevier. We have introduced author environmental statements in our energy journals, revised editorial boards to better reflect diversity in topic area and geolocation. We have closed the journal Upstream Oil and Gas. In our books team, we expect all our previously contracted books will meet our Energy with purpose mission statements by the end of 2024. Additionally, we closed our geospatial product Geofacets at the end of 2023.

Elsevier Energy Research for a just transition

We publish research across disciplines – including engineering and the physical, natural, and social sciences – that supports UN Sustainable Development Goals to ensure clean and affordable energy for all.





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