ESG DUE DILIGENCE REPORT 2022

As the world’s leading publisher of Open Access books, and a portfolio of Open Science journals, IntechOpen has embarked on a journey towards environmental, social, and governance (ESG) excellence. This second, annual ESG report builds on the insights and achievements of 2021. This brochure serves a dual purpose: to showcase the advancements made since the first report and to underscore IntechOpen’s commitment to continuous improvement in ESG practices.

IntechOpen proudly stands as a signatory of the SDG Publishers Compact, exemplifying its ongoing commitment to raising awareness, publishing, and promoting scientific research in support of the global Sustainable Development Goals (SDGs). As IntechOpen moves towards sustainability excellence, it remains firmly rooted in responsible business practices, proactive stakeholder engagement, and dedicated environmental stewardship. Guided by the principles of transparency, accountability, and continuous learning, IntechOpen’s ESG journey is geared towards making a meaningful impact.

Sustainability experts at VentureXchange Ltd performed the comprehensive ESG Due Diligence and this report represents the summary and highlights of the most important findings.
Moving forward, IntechOpen is committed to sustaining this approach by continuously evaluating performance and engaging with stakeholders. This dynamic process ensures that emerging trends, evolving industry dynamics, and new material topics are promptly identified and incorporated into the assessment. By proactively including recognised sustainability topics, IntechOpen is able to stay ahead of the curve and drive meaningful progress.

Materiality Assessment

The ESG Materiality Assessment adheres to the concept of double materiality, encompassing both “financial materiality” and “impact materiality”. By adopting this comprehensive approach, IntechOpen identifies and prioritises the most crucial sustainability issues that intersect with its business operations and stakeholders’ interests.

In line with its commitment to transparency and reporting, IntechOpen has tailored recognised industry topics to suit its unique business niche. For instance, the addition of “Cloud Emissions” as a specific material aspect under the “Energy Management & Digital Carbon Footprint” topic is an example of IntechOpen’s proactive response to industry-specific metrics.

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**3. Materiality Assessment**

- Energy Management & Digital Carbon Footprint
- Resource Efficiency & Sustainable Sourcing
- Recruiting & Managing a Global, Diverse & Skilled Workforce
- Managing Systemic Risks from Technology Disruptions
- Data Security
- Advancing Open Access and Open Science
- Safeguarding Research Integrity & Publication Ethics
- Intellectual Property Protection & Media Piracy
- Accelerating Solutions to the SDGs
REDUCING OUR ENVIRONMENTAL IMPACT

Energy Management

<table>
<thead>
<tr>
<th>GHG emissions</th>
<th>Unit</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct emissions (Scope 1)</td>
<td>tCO₂e</td>
<td>1.21</td>
<td>2.36</td>
</tr>
<tr>
<td>Indirect emissions (Scope 2), location-based emissions¹</td>
<td>tCO₂e</td>
<td>2.38</td>
<td>4.79</td>
</tr>
<tr>
<td>Indirect emissions (Scope 3) - business travel</td>
<td>tCO₂e</td>
<td>-</td>
<td>0.68</td>
</tr>
<tr>
<td>Indirect emissions (Scope 3) - cloud emissions</td>
<td>tCO₂e</td>
<td>-</td>
<td>0.50</td>
</tr>
<tr>
<td>Total GHG emissions</td>
<td>tCO₂e</td>
<td>3.59</td>
<td>8.33</td>
</tr>
</tbody>
</table>

Resource consumption

<table>
<thead>
<tr>
<th>Resource consumption</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Water withdrawn¹</td>
<td>329,38 m³</td>
<td>279 m³</td>
</tr>
</tbody>
</table>

IntechOpen’s GHG emissions were calculated following the approach developed by the GHG Protocol, a Corporate Accounting and Reporting Standard. The operational boundaries for accounting and reporting on these emissions have been defined to encompass all areas where IntechOpen believes its business activities have a significant impact.

Considering the nature of IntechOpen’s business services and the far-reaching impact of its activities, the primary focus of greenhouse gas (GHG) emissions shifts away from Scope 1 and Scope 2 emissions. As an Open Access publisher, IntechOpen recognises the significance of its impact on the energy consumed by data centres and the associated infrastructure required to deliver cloud-based services to users worldwide.

IntechOpen utilises AWS (Amazon Web Services) for its cloud computing services, which offers the Customer Carbon Footprint Tool. This tool enables customers to estimate the carbon footprint associated with their usage of AWS services.

Renewable Energy

IntechOpen’s energy consumption strategy was established with consideration for the critical role of Renewable Energy Sources (RES) in achieving sustainability goals. However, due to certain constraints, it was determined that obtaining 100% renewable electricity for its office locations is not possible. Energy consumption is inherently linked to IntechOpen’s energy suppliers’ energy sourcing practices.

¹ The company has adopted the location-based method for calculating Scope 2 emissions in accordance with the GHG Protocol guidelines. As the company sources its electricity solely from the national grid without utilising any contractual instruments for renewable energy procurement, the location-based method provides an accurate representation of the emissions associated with its electricity consumption.

² The office is located in an area of low water stress, as classified by the World Resources Institute’s Water Risk Atlas tool, Aqueduct. Water withdrawn corresponds to consumed water as no water is used in any of the company’s operations.
Digital Carbon Footprint
IntechOpen recognises the significant impact of its operations on greenhouse gas emissions, with particular attention to the energy consumed by data centres and cloud-based services.

Cloud Emissions
IntechOpen’s environmental focus shifts to cloud emissions due to its reliance on cloud services provided by external infrastructure providers.

• IntechOpen evaluates sustainability policies and renewable energy commitments of cloud service providers to align with its environmental standards.
• IntechOpen optimises resource utilisation and adopts virtualisation and server consolidation strategies to enhance energy efficiency in the cloud.
• The company actively monitors, and tracks energy consumption and emissions associated with its cloud operations through the internal and third-party reporting currently available.

Website Energy Consumption

• IntechOpen employs strategies like image optimisation, caching mechanisms, and efficient coding practices to optimise website performance and reduce energy consumption.
• The company prioritises efficient resource utilisation and hosts its website infrastructure with a focus on auto-scaling for energy conservation.
• Regular performance audits drive continuous improvement in website optimisation and energy efficiency.

IntechOpen considers establishing specific goals to reduce website carbon footprint and energy consumption.

Sustainable Equipment Management and Procurement

• IntechOpen emphasises sustainable equipment management and procurement practices to minimise its environmental impact.
• The company prioritises equipment suppliers with environmental certifications and energy-efficient devices, such as Energy Star-rated laptops.
• Life cycle assessment (LCA) of equipment is considered, and partnerships with certified e-waste recyclers ensure responsible disposal.
• The company has adopted circular economy practices, encouraging device repairs, upgrades, and proper maintenance to reduce waste and conserve resources.
**Resource Efficiency & Sustainable Sourcing**

The company prioritises environmental responsibility by sourcing paper from responsibly managed forests, including recycled content or certified sustainable sources like FSC or PEFC-certified forests. IntechOpen ensures supply chain transparency and traceability by engaging with suppliers that comply with environmental regulations and sustainability criteria.

IntechOpen is actively engaged in carbon offsetting efforts related to printing and shipping. In December 2022, the company implement the GoGreen Climate-Neutral Shipping program. This program enables to offer customers climate-neutral shipping options worldwide and share transparent figures on its carbon footprint impact, contributing to the fight against the climate crisis.

**Print-on-demand**

IntechOpen books are available online, and for its print products as of 2011, we offer only a print-on-demand option to avoid unnecessary waste.

**Sustainability from forest to paper**

The chosen paper and cardboard producers promote sustainable forestry by responsible sourcing of certified wood and paper.

**Sustainability-aware printing services**

IntechOpen's printing partners are aligned with the following standards: FSC® CoC (Chain of Custody), ISO 14001:2004, and ISO 9001:2008.

**Responsible shipping**

In 2022 IntechOpen has adopted the Go Green Climate neutral shipping program by DHL, whose main objective is to reduce and avoid the emission of greenhouse gases and local air pollutants.
Recruiting & Managing a Global, Diverse & Skilled Workforce

IntechOpen is a dynamic, vibrant company where exceptional people achieve great things. IntechOpen offers a creative, dedicated, committed, and passionate environment and constantly strives to ensure that members of its community can work, travel, meet world-renowned researchers, grow their careers, and develop their own experiences. Employee satisfaction is imperative for IntechOpen to ensure a productive workplace for its employees to reach their full potential.

OUR EMPLOYEES

Indicator

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees (FTE)</td>
<td>71</td>
<td>77</td>
</tr>
<tr>
<td>Board level (FTE)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Employee level (FTE)</td>
<td>68</td>
<td>74</td>
</tr>
</tbody>
</table>

- **18.7%** Attrition
- **13.28%** Voluntary attrition
- **5.42%** Involuntary attrition

Work-related injuries: 0
THE ROLE OF TECHNOLOGY

IntechOpen is a company founded by roboticists and is rooted in technology. IntechOpen developed the necessary tools and operational approach to support a novel publishing model and a pioneering product.

Managing systemic risks from technology disruptions

IntechOpen implemented a comprehensive incident reporting and tracking process to closely monitor performance issues and service disruptions. The total customer downtime related to these incidents amounted to 16.25 hours out of a total of 4,380 hours during that period. This translates to an availability percentage of approximately 99.63%, demonstrating IntechOpen’s commitment to maintaining a high level of service reliability and minimising disruptions for customers.

IntechOpen prioritises transparency and accountability in addressing service disruptions. The company records the incident duration for each significant disruption, assesses the impact, conducts a root cause analysis, and promptly implements corrective actions. IntechOpen continuously improves its services to provide a seamless experience for customers.

Data Security

IntechOpen has established a robust data security policy encompassing various aspects of data protection, such as data classification, access controls, encryption, data handling and storage, incident response, and employee awareness and training. This policy serves as a guideline for maintaining the confidentiality, integrity, and security of sensitive data. Notably, IntechOpen has not experienced any significant data security breaches in the last three years.

OPEN ACCESS & RESEARCH INTEGRITY

Advancing Open Access and Open Science

Delta Think’s 2023 analysis recognised IntechOpen as the industry’s largest publisher of Open Access books, commanding a remarkable 9.6% share in the Directory of Open Access Books (DOAB). This underscores IntechOpen’s significant contributions to Open Access and knowledge dissemination.

In 2022, in conjunction with the launch of its journals, IntechOpen launched a series of educational webinars on Open Science, aimed at engaging researchers and specialists in the field. The “Introduction to Open Science” webinar highlighted the importance of openness in scientific practices, covering topics such as transparent peer review, data availability, and reproducible research. IntechOpen is gathering industry-leading experts and organisations for the “Engaging with Open Science 2023” webinar series, further advancing the dissemination of Open Science principles.

Across all years, IntechOpen remains the largest publisher.
Safeguarding Research Integrity & Publication Ethics

IntechOpen continuously improves its documented set of editorial policies to ensure ethical publishing practices (during and after the publication process) and maintains the integrity of the academic record. IntechOpen has been a member of the Committee on Publication Ethics (COPE) since 2013, which advocates maintaining the highest ethical standards for all parties involved in the act of publishing, including Authors, Editors, Peer Reviewers, the Publisher and Societies, where applicable.

IntechOpen is constantly strengthening its adherence to ethical guidelines in scientific publishing. It continuously aligns with formal best practices and fosters education, training and sharing experiences with the publishing community. In 2022, the company participated in events like the STM Research Integrity Master Class, which facilitated in-depth discussions on crucial research integrity matters.

Policies and principles also govern research ethics and reporting, authorship policy and criteria, competing interests and transparency, together with all relevant specific areas that ensure ethical publication practices. IntechOpen policies encourage equity and bias-free communication, where applicable. In line with the Open Access and Open Science principles, IntechOpen supports research transparency at various stages. By partnering with Figshare, IntechOpen Journals enhances research impact and fosters data sharing and availability.

Intellectual Property Protection & Media Piracy

IntechOpen adopts a comprehensive approach to intellectual property protection in the context of Open Access publishing, allowing authors to retain copyright while granting others the right to access, use, and distribute the work under certain conditions. The company utilise Creative Commons licenses to define usage terms, ensuring proper attribution to authors and copyright holders and promoting responsible research dissemination.

IntechOpen employs iThenticate plagiarism detection software to ensure the originality and integrity of published content and has mechanisms in place to address potential copyright infringement issues. IntechOpen supports authors requesting assistance in the copyright clearance process.
UNITED NATIONS SDGs

Accelerating Solutions to the SDGs

Since joining the SDG Publishers Compact, IntechOpen has published over 60 Open Access books that raise awareness of the United Nations Global Goals and promote scientific research. Currently, there are more than 150 titles in the pipeline.

IntechOpen publishes the newly introduced Sustainable Development book series, publishing 75 chapters and three books. Additionally, SDG-related research is also published through the Environmental Sciences book series, further supporting the commitment to sustainability and the UN SDGs.

IntechOpen has launched the new Open Science journal Green Energy and Environmental Technology, and published research papers specifically addressing sustainability topics.

The published papers cover a diverse range of sustainability topics, encompassing research areas such as renewable energies, environmental engineering and clean technologies, renewable energies, sustainable energy generation, storage, and distribution, and green and sustainable chemistry.

The content published in the Journal contributes to SDG Goals 7 (Affordable and Clean Energy), 11 (Sustainable Cities and Communities), and 13 (Climate Action) through two forthcoming special issues themed around these specific goals.

INITIATIVES

Book Aid

In November 2022, IntechOpen Donated Books to Book Aid International, Supporting Progress and Equity in Research and Education.

“This initiative is of great importance to IntechOpen because, in the spirit of making knowledge available to all, it allows our publications to be shared with researchers and professionals living in countries with reduced access to online resources. With Book Aid International’s long history and commitment to sharing the power of books to advance progress and promote equity, this initiative is a natural fit for us. We hope to keep supporting Book Aid International in the future.”

Alison Tweed, Chief Executive at Book Aid International and Dr. Sara Uhac, Chief Executive Officer at IntechOpen, at the Frankfurt Book Fair, 2022
Climate Change Initiatives

The publishing industry has united in calling for climate action as a priority, with the ambition to support SDG 13 - Climate Action. IntechOpen also prioritised SDG 13 in its sustainability approach through its publishing program and special initiatives in response to this global call.

International Open Access Week 2022

We marked International Open Access Week 2022 in partnership with Editage, R Discovery, Impact Science (brands of CACTUS, a science communications company), and Brill organizing a variety of interactive activities. Discussions focused on the event’s theme “Open for Climate Justice” and the importance of Open Access around climate change.

IntechOpen Joined the Climate Change Knowledge Cooperative

A selection of articles related to climate change and renewable energy published in our Open Science journal, Green Energy and Environmental Technology, is available and hosted by Kudos, providing easy-to-understand research summaries to help everyone understand and act on climate change.

In Support of Children

Every year our team takes part in socially-responsible initiatives. For Christmas 2022, our employees decided to donate to a Children’s home and support Goal 16.2. The aim was to help a public social care institution that provides psychosocial assistance to children, young people and their families through a half-day stay program, professional advisory service and preventive activities.

Wings for Life 2022

IntechOpen joins the rest of the world each year in the Wings for Life World run. The world’s biggest running event is an international race in which donations help to support spinal cord injury research - 100% of entry fees go to spinal cord research and help to find a cure for spinal cord injury.