Materiality analysis
Issue April 2022
# Table of Contents

Materiality analysis .................................................................................................................................................. 3

Lenzing’s materiality analysis 2021 ....................................................................................................................... 3
  Development of materiality analysis .................................................................................................................. 3
  Environmental and social & governance impact analysis .............................................................................. 4
  Financial impact analysis ............................................................................................................................... 6
  Stakeholder assessment ................................................................................................................................ 7

Final results: materiality matrix (on a scale of medium to high) ................................................................. 9

The updated material topics ............................................................................................................................... 10

Description of material topics ........................................................................................................................... 11

List of figures .................................................................................................................................................... 14

Imprint .............................................................................................................................................................. 14
Materiality analysis

International guidelines for sustainability reporting such as The Global Reporting Initiative (GRI), the International Integrated Reporting Council (IIRC) or the EU Corporate Sustainability Reporting Directive (CSRD) require a materiality analysis as a basis for non-financial reporting (sustainability reporting) with the aim of implementing a standardized analysis to make these reports more comparable. The materiality analysis helps to link the topics identified as material for the company and its stakeholders with the report content and thus also the possibility of setting sustainability priorities and targets for the company in order to improve its performance in the area of sustainability.

In 2019, the EU Commission introduced the concept of “double materiality” requiring the assessment of risks and opportunities from two perspectives: firstly, from a financial perspective and, secondly, in terms of how they affect their business and the impact they have on people and the environment.

Lenzing’s materiality analysis 2021

The regular update of the materiality analysis is an integral part of Lenzing’s sustainability strategy. In 2017, Lenzing presented its new sustainability strategy “Naturally Positive”. In the run-up to this, a comprehensive materiality analysis was carried out for the first time in 2015. In 2021, this materiality analysis was updated and expanded. For the first time, a so-called double materiality analysis was carried out.

Development of materiality analysis

The new materiality matrix of the Lenzing Group was developed in three phases.

![Figure 1: Development of materiality analysis](image-url)
The first phase was dedicated to defining the relevant topics. In a first step, around 300 internal and external topics and trends in the areas of environment, social and governance (ESG: Environment, Social, Governance) were defined for the present and future (= long list). For this purpose, the major megatrends were taken into account as well as customer inquiries, customer questionnaires, topics from customer contacts, conferences, events, trade media, internal analyses and many other aspects. In addition, the internal risk assessment was included in this step. In a second step, this list of topics was summarized into 16 topic areas (= consolidated or short list), which in turn produced the possible material topics. Descriptions were drafted for these 16 relevant topics in order to gain a common understanding for all participants in the subsequent steps. These descriptions also included the relevance of the topic from the company's point of view as well as possible risks and business opportunities that it might generate.

In the second phase, internal and external stakeholders were involved to prioritize these 16 topics. In order to involve all relevant stakeholders, an online questionnaire was developed. The purpose was to identify the importance of the individual topics from the stakeholders' point of view. The questionnaire was sent to around 400 stakeholders worldwide, including employees from different sites and levels, the Supervisory Board, investors, suppliers, customers, partners from the value chain, brand manufacturers as well as insurance companies and the media.

In addition, a so-called impact analysis of these topics was carried out, involving around 40 employees (including the Managing Board) from various areas who are also involved in sustainability reporting with regard to ecological and social impacts. ESG topics can also include both risks and opportunities that are material from a financial perspective. Therefore, the materiality analysis was extended to include the financial perspective (double materiality).

All of the assessments explained below were individually rated on a scale of 1 (very low) to 6 (very high).

**Environmental and social & governance impact analysis**

**Environmental impact analysis**

The ecological impacts have been assessed by Lenzing internally by using data from existing Life Cycle Assessments (LCAs). Specific, relevant LCA indicators were assigned to each topic on the shortlist. Thus, the respective share of the total environmental impact of Lenzing's production activities can be calculated for each topic together with the degree of severity. Each aspect of severity (scale, scope, irreversibility) was also assessed qualitatively by a small survey of representative experts. The results are shown in figure 02.

**Social & governance impact analysis**

The social and governance related impacts have been evaluated by means of an internal survey involving the participation of 16 internal experts (figure 02). The final assessment was derived from the participants’ average assessment for each topic (figure 03) and compiled as the maximum out of the three assessment categories (scale, scope, irreversibility).
For both, the environmental and social & governance assessments, some effects will certainly occur due to impacts linked to the relevant topics, which is why the likelihood was defined as 100%.

Results of environmental, social & governance impact analysis

![Figure 3: Results environmental, social & governance impact assessment](image)
Financial impact analysis

All topics have been assessed according to their potential financial impact within an internal expert survey involving 12 participants and using the following assessment categories (figure 04). The participants were presented with scenarios of financial impacts and risks. Only impacts and risks with a potential financial impact of more than €500,000 were included. The potential financial impact multiplied by probability equals the expected financial impact per topic.

![Survey](image)

Figure 4: Screenshot financial impact assessment

Results of financial impact assessment

![Figure 5: Results of financial impact assessment](image)
Stakeholder assessment

Stakeholder interests were assessed by 150 internal and external stakeholders (figure 07) by means of an online survey (figure 06). The participants were presented with topic descriptions and two assessment categories:
- assessment per single topic
- top 3 rating

To obtain differentiated results, single topic ratings and top 3 ratings are weighted equally (50% each).

Only stakeholder groups with at least six participants were considered for the evaluation. As shown in figure 07, stakeholder groups with less than six participants were put together in two clusters of direct (contractors, direct customers and value chain partners) and indirect stakeholders (brands & retailers, competitors, media & influencer). Each group was weighted equally. The overall response rate was around 50 percent.
Figure 7: Participants in stakeholder assessment

<table>
<thead>
<tr>
<th>Category</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brands &amp; retailers</td>
<td>13</td>
</tr>
<tr>
<td>Competitors</td>
<td>10</td>
</tr>
<tr>
<td>Media &amp; influencer</td>
<td>7</td>
</tr>
<tr>
<td>Contractors</td>
<td>27</td>
</tr>
<tr>
<td>Direct customers &amp; VC partners</td>
<td>19</td>
</tr>
<tr>
<td>Investors &amp; financial institutions</td>
<td>74</td>
</tr>
<tr>
<td>Employees</td>
<td>74</td>
</tr>
</tbody>
</table>

Figure 8: Results of stakeholder assessment

<table>
<thead>
<tr>
<th>Category</th>
<th>Environment</th>
<th>Social</th>
<th>Governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate &amp; energy</td>
<td></td>
<td></td>
<td>5.3</td>
</tr>
<tr>
<td>Health &amp; safety</td>
<td></td>
<td></td>
<td>4.3</td>
</tr>
<tr>
<td>Circularity &amp; resources</td>
<td></td>
<td></td>
<td>4.8</td>
</tr>
<tr>
<td>Sustainable innovation &amp; products</td>
<td></td>
<td></td>
<td>4.6</td>
</tr>
<tr>
<td>Responsible wood sourcing</td>
<td></td>
<td></td>
<td>4.5</td>
</tr>
<tr>
<td>Biodiversity &amp; ecosystems</td>
<td></td>
<td></td>
<td>4.3</td>
</tr>
<tr>
<td>Business ethics</td>
<td></td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>Employee empowerment &amp; development</td>
<td></td>
<td></td>
<td>3.9</td>
</tr>
<tr>
<td>Human rights &amp; fair labor practices</td>
<td></td>
<td></td>
<td>3.8</td>
</tr>
<tr>
<td>Supply chain sustainability</td>
<td></td>
<td></td>
<td>3.8</td>
</tr>
<tr>
<td>Corporate governance</td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Diversity, inclusion &amp; equal opportunity</td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Water stewardship</td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Digitalization &amp; cyber security</td>
<td></td>
<td></td>
<td>3.2</td>
</tr>
<tr>
<td>Community wellbeing</td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Advocacy &amp; engagement</td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
</tbody>
</table>
Final results: materiality matrix (on a scale of medium to high)

In the third phase, the internal and external results were summarized in a materiality matrix. This made it possible to identify the most material issues, which were reviewed by the Austrian consultancy denkstatt GmbH.

On this basis, the final materiality matrix was created (figure 09) and the future material topics were defined together with the corresponding GRI indicators. This forms the basis for sustainability reporting. In addition, the material topics were integrated into the existing sustainability strategy.

![Materiality Matrix](image)

Figure 9: Final results: materiality matrix (on a scale of medium to high)

The cut-off line was set as shown in the chart, based on internal alignments and the views of external experts. The topic of digitalization & cyber security was added to the set of material topics due to its importance as derived from the financial impact analysis.
The updated material topics

At the end of the materiality analysis, the topics above the dotted line were defined as material. The newly added topics are marked with a star, while all others have been updated in terms of content. Those below the line will still be included in future sustainability reporting in some form, even if not in separate chapters.

Figure 10: New material topics

- **Environment**
  - Circularity & resources
  - Climate & energy
  - Responsible wood sourcing
  - Biodiversity & ecosystems
  - Sustainable innovation & products

- **Social**
  - Health & safety
  - Human rights & fair labor practices

- **Governance**
  - Business ethics
  - Digitalization & cyber security
  - Corporate governance
  - Advocacy & engagement
  - Community wellbeing
  - Diversity, inclusion & equal opportunity
  - Employee empowerment & development

* = new topic
Description of material topics

Circularity & resources
Lenzing is developing a circular economy model by creating more sustainable systems and processes at every opportunity. The company has worked hard to achieve greater efficiency in the use and reuse of resources, such as closing loops in production processes and producing fibers that are biodegradable at the end of their life. Such measures also ensure that Lenzing remains financially competitive and compliant with environmental legislation.

As Lenzing continues to drive circular solutions across both the business and the industry, the complex transition from a linear to a circular system requires a collaborative approach. The company has partnered with Swedish pulp producer Södra to generate more opportunities for recycling waste, creating circular practices and promoting systematic change. The company aims to create as much value as possible through improved sustainability performance, the impact of which is felt throughout the entire value chain.

Climate & energy
Dissolving wood pulp and fiber production are energy-intensive processes that present a climate challenge for Lenzing. Where possible, the company has eliminated fossil-based energy or replaced it with renewable sources. Investments in state-of-the-art carbon neutral technologies and low-carbon production processes at all Lenzing sites have helped to increase energy efficiency and positively influence the company’s carbon emissions.

Climate risks present opportunities for innovation and investment that make Lenzing more resilient to the changing regulatory landscape. It demonstrates industry leadership as recognized in 2021 by the environmental non-profit organization CDP, which awarded Lenzing a triple ‘A’ rating for climate, water and forestry. This sustained environmental effort has kept the company on track to meet the ambitious reduction target of 50 percent by 2030, which also supports the larger goal of achieving a zero-carbon future by 2050 in line with the Paris Agreement.

Raw material security
Lenzing minimizes the environmental risk of procuring raw materials through responsible sourcing from sustainably managed forests. More than 99 percent of the company's wood and pulp sourcing is certified by globally recognized standards, such as the Forest Stewardship Council (FSC®) and the Programme for the Endorsement of Forest Certification (PEFC). Investment in the dissolving wood pulp mill in Brazil has also continued throughout 2021. Once operational in early 2022, the mill will produce up to 500,000 tons of dissolving wood pulp supplied by FSC certified plantations.

In October 2021, the Canadian environmental organization Canopy also recognized Lenzing’s continuing leadership regarding sustainable procurement and the efficient use of resources. The company received a “dark
green shirt” for the second year running, which signifies low risk for sourcing from ancient and endangered forests. Canopy is a globally regarded non-profit organization that ranks viscose suppliers according to their sourcing practices.

**Biodiversity & ecosystems**
The World Economic Forum identifies the loss of biodiversity as one of the top three systematic risks to people and the planet. Investment in the protection of biodiversity is also critical to the success of Lenzing’s business. The company therefore continues to innovate in the fields of responsible systems, processes and products that mitigate risks to the natural environment.

Lenzing’s innovation in fiber production also provides end-of-life solutions for textile and nonwoven products. In 2021, the company received further confirmation that Lenzing fibers are biodegradable from Scripps Institution of Oceanography at the University of California, San Diego. Lenzing also joined the Textile Exchange’s Advisory Group for the Biodiversity Benchmark, which supports companies in understanding and mitigating their impact on nature.

**Sustainable innovation & products**
Sustainability acts as a guiding principle for Lenzing’s innovation and product development, which is driving systematic change across the textile and nonwoven industries. The continual improvement of existing product and production technologies builds business resilience and reputation, as well as facilitating the supply of products to value chain partners that contribute to the eco-credentials of their own portfolios.

Moving from linear to circular ways of working presents many opportunities for Lenzing to provide customers with a variety of environmental solutions, such as biodegradable fibers for the manufacturing of agricultural and hygiene products. In 2021, Lenzing also partnered with Italian company Orange Fiber to provide the first TENCEL™ lyocell fibers made from the combined pulp of wood and citrus fruits. The innovative fibers inspired the fashion industry by showcasing the potential of responsibly produced products.

**Health & safety**
A safe working environment with supportive health systems for Lenzing’s employees are as critical to business success as eco-responsible products and production processes. Healthcare at all Lenzing locations has been enhanced throughout the COVID-19 crisis. Managing the impact of the pandemic on large construction sites in Thailand and Brazil has been no small task. Close to zero COVID-19 cases were reported on site in Brazil at the end of 2021. In Thailand, 16.9 million man-hours were completed without time lost to injury.

Lenzing seeks to exceed its compliance with health and safety requirements across all sites. During 2021, employees were invited twice to take part in a Health Climate Index survey on two occasions, which gathers and
compares feedback on all aspects of the working environment from safety to training and development. The results will inform the company’s actions to improve working environments throughout 2022 and beyond.

**Human rights & fair labor practices**

Diversity, inclusion and respect are core pillars of a strategy designed to attract and develop talent from all backgrounds. A committed and empowered workforce is critical to business success, and Lenzing acts to provide equal opportunities for employment, learning and development. The company seeks to create an open-minded and inclusive environment by proactively fostering ethical ways of working in compliance with high internal standards, as well as principles outlined by international regulatory bodies.

The continuing impact of COVID-19 made 2021 a challenging year for Lenzing’s employees. Group-wide crisis management was executed efficiently to provide sufficient care for employees and contractors, as well as their families. Local crisis teams supplemented global efforts to ensure that everyone received fair and adequate support, ranging from COVID-19 testing to care packages. Beyond the pandemic, Lenzing continues to adhere to and uphold human rights and fair labor practices in all aspects of the global working environment.

**Business ethics**

Lenzing and its people are expected to act with honesty and transparency in line with the Group’s Global Code of Conduct and corporate governance policies. These expectations of compliance reach beyond legal requirements and regulatory standards as the company strives for exemplary quality in all products, processes and dealings with customers, partners and shareholders. It is the responsibility of all employees and contractors to uphold these standards and to help create a culture of tolerance and integrity.

Lenzing continues to develop its Compliance Management System to ensure the company acts to prevent misconduct, mitigate compliance risks and effectively safeguard its people. Training in business ethics ensures that all employees understand the behavior expected of them and contributes to an environment where the people feel comfortable raising concerns or reporting misconduct. Suppliers are also expected to adhere to the highest professional and ethical standards in the industry.

**Digitization & cyber security**

The COVID-19 lockdowns of 2021 required digital solutions that safely supported internal collaborations and customer relationships when face-to-face meetings were not possible. While the company promotes a risk-based approach to ensure global compliance with information security, it must also empower its people with the knowledge needed to mitigate the risk of cybercrime. This has been enabled via ongoing initiatives to raise awareness.
Lenzing is also extending its technical solutions to prevent fraud across the supply chain. In 2021, the company delivered transparency across product supply chains with the extension of fiber identification technology to all TENCEL™ branded lyocell and modal fibers, and VEOCEL™ branded fibers. Digital traceability was also rolled out across the textile supply chain enabled by a cloud-based platform. Identification technology allows Lenzing fibers to be verified at any point in the supply chain, which protects the company’s reputation and builds customer trust and loyalty.

**List of figures**

Figure 1: Development of materiality analysis ..................................................................................................... 3
Figure 2: Screenshot of internal survey for social and governance topics ............................................................ 5
Figure 3: Results environmental, social & governance impact assessment ......................................................... 5
Figure 4: Screenshot financial impact assessment ............................................................................................... 6
Figure 5: Results of financial impact assessment ................................................................................................. 6
Figure 6: Screenshot of stakeholder assessment survey .......................................................................................... 7
Figure 7: Participants in stakeholder assessment .................................................................................................. 8
Figure 8: Results of stakeholder assessment ....................................................................................................... 8
Figure 9: Final results: materiality matrix (on a scale of medium to high) ............................................................. 9
Figure 10: New material topics ........................................................................................................................... 10

**Imprint**

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