

# Lenzing Group

## 2022

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# Sustainability key performance indicators

[GRI 201-1]

## Lenzing Group: Sustainability key performance indicators

Table 01

		2020	2021	2022
	Value creation	EUR 406.4mn	EUR 685.4mn	EUR 527.6mn
<b>Economic value creation<sup>a</sup></b>	<b>Distribution of value creation</b>			
	Employees <sup>b,c</sup>	EUR 347.5mn	EUR 446.4mn	EUR 449.5mn
	Retained earnings	EUR -10.6mn	EUR 12.2mn	EUR -37.2mn
	Public sector <sup>d</sup>	EUR 44.8mn	EUR 67.6mn	EUR 42.6mn
	Shareholders (dividends) <sup>e</sup>	EUR 0.0mn	EUR 115.5mn	EUR 0.0mn
	Lenders <sup>b,f</sup>	EUR 26.7mn	EUR 43.6mn	EUR 72.7mn
	ROCE (return on capital employed) <sup>b,g</sup>	-0.6%	5.4%	2.0%
	Adjusted equity ratio <sup>g</sup>	45.8%	39.7%	37.8%
	Revenue	EUR 1,632.6mn	EUR 2,194.6mn	EUR 2565.7mn
	EBITDA (earnings before interest, tax, depreciation and amortization) <sup>b</sup>	EUR 192.3mn	EUR 362.9mn	EUR 241.9mn
Sales volume fibers (t)	787,000	909,000	814,430	
<b>Raw material security</b>	Proportion of wood source certified or controlled by forest certification	>99%	>99%	>99%
	Share of own pulp	62.4%	65.2%	94.7%
<b>Sustainable innovations</b>	R&D expenditure, calculated according to the Frascati method (EUR)	EUR 34.8mn	EUR 31.6mn	EUR 34.8mn
	Specialties share based on fiber revenue <sup>h</sup>	76.2%	72.3%	70.9%
	Specific sulfur emissions to air (kg/t, 2014 = 100%)	61%	74%	67%
	Specific water intake (index in percentage based on m <sup>3</sup> /t, 2014 = 100%)	96%	90%	94%
	Specific water emissions after wastewater treatment COD (index in percentage based on kg/t, 2014 = 100%)	100%	92%	90%
<b>Decarbonization</b>	Specific <sup>i</sup> primary energy consumption (GJ/t, 2014 = 100%)	97%	97%	98%
	Specific <sup>i</sup> GHG emissions index scope 1, 2 & 3 <sup>j</sup> (index in percentage based on t CO <sub>2</sub> eq./t, 2017 = 100%)	85%	91%	82%
<b>Employees</b>	Number of employees <sup>k</sup>	7,358	7,958	8,301
<b>Health &amp; safety</b>	Rate of recordable work-related injuries (TRIFR) <sup>k</sup>	0.92	0.76	0.6
<b>Partnering for systemic change</b>	Proportion of relevant suppliers with EcoVadis rating (%)	84%	91%	83%

a) Value creation within the Lenzing Group is calculated as the company's business performance minus the cost of materials, other expenses, depreciation and amortization. The distribution of value creation shows the extent to which it is distributed among stakeholders such as employees, the public sector, and lenders.

b) Reclassification of capitalized borrowing costs, net interest from defined benefit plans and commitment fees from EBIT/EBITDA to the financial result (see note 2 of the Lenzing Group consolidated financial statements 2022).

c) Personnel expenses less municipal taxes.

d) Based on the proposed distribution of profits.

e) Income tax expenses plus asset taxes and similar taxes plus municipal taxes.

f) Financing costs less net foreign currency gain/losses from financial liabilities.

g) The above mentioned financial indicators are derived primarily from the IFRS consolidated financial statements of the Lenzing Group. Additional details are provided in the section "Notes on the financial performance indicators of the Lenzing Group", in the glossary to the Annual Report and in the consolidated financial statements of the Lenzing Group.

h) Lenzing's specialty fibers are net-benefit products that offer positive impacts and benefits to society, the environment, and value chain partners.

i) Specific indicators are reported per unit of production by the Lenzing Group (i.e. pulp and fiber production volumes).

j) Recalculation of scope 3 emissions from 2017 to 2021 based on updated data from market pulp suppliers. 2022 exclusion of scope 1, 2 & 3 CO<sub>2</sub> numbers for Thailand and Brazil as these plants are in the start-up phase.

k) Employees (incl. apprentices, excluding supervised workers) in Austria, the Czech Republic, United Kingdom, USA, China, Indonesia, India, Taiwan, Thailand, Türkiye, Korea, Singapore, and Brazil.

# Highlights of the year

## Strategic milestones

- Pulp mill in Indianópolis (Brazil) is the largest of its kind. Due to the plant's excess bioenergy, it provides electricity to Brazilian grid, thus replacing gas based energy and grid electricity
- Achievement of half a billion products on the market branded with TENCEL™, LENZING™, ECOVERO™, and VEOCEL™, hitting the 2022 full-year target
- Long-term supply contract with Swedish textile-to-textile recycling company Renewcell for 100 percent recycled textile dissolving pulp
- Milestone of LENZING™ ECOVERO™ viscose fibers production of over 300,000 tonnes accomplished, with capacity increasing further to meet growing demand
- Largest ground-mounted photovoltaic plant in Upper Austria started operation
- Production site in Nanjing (China) partly uses electricity derived from 100 percent renewable resources, starting in December 2022 and continuing in 2023 (100 percent in 2023), thus reducing CO<sub>2</sub> emissions by 100,000 tonnes per year based on production capacity
- Purwakarta (Indonesia) site has used electricity generated 100 percent from renewable sources since July 2022, which will reduce its carbon emissions by 75,000 tonnes annually
- Lenzing partners with Circular and Sustainable Textile and Clothing (CISUTAC) to further develop recycling processes for cellulose fibers
- Launch of matte TENCEL™ branded lyocell fibers for denim applications
- Fusion of LENZING™ Web Technology with a pulp wetlaid process for new low carbon emission products
- Sign-off of a 5.5MW peak photovoltaic power purchase agreement with Energie Steiermark and Enery. The PV plant will be built in Styria (Austria) and supply electricity to Lenzing (Austria) from Q4 2023 onward
- World's largest lyocell fiber production plant opened in Prachinburi (Thailand)

## Achievements

- Lenzing joined the UN Global Compact sustainability initiative
- Lenzing joined the Together for Sustainability (TfS) industry initiative to create more transparent global supply chains and actively raise environmental and social standards
- Publication of Lenzing's [Climate Transition Plan](#)

## Ratings and awards

- CDP: Lenzing is one of only 12 companies worldwide to be recognized with an outstanding triple "A" for environmental leadership and disclosure in climate change, water security and forests
- MSCI ESG: "AA" rating achieved again
- Canopy: ranked 1<sup>st</sup> place in the Hot Button Ranking, earning a dark green shirt
- EcoVadis: Platinum status for the second time in succession
- VEOCEL™ was awarded the "2021 Outstanding Contribution for Sustainability" award at the Sustainable Development China Forum (awarded in 2022)
- OEGUT Environmental Award: Lenzing recognized as a champion of the circular economy by OEGUT in the "World without waste" category for textile recycling activities
- TENCEL™ Modal fiber with Indigo Color technology won the ITMF (International Textile Manufacturers Federation) award for Sustainability and Innovation at the ITMF Annual Conference
- Lenzing and LD Celulose won second place at the Financial Times/International Finance Corporation (IFC) Transformational Business Awards for the climate-smart investment project in Brazil
- Lenzing received the "Austrian Sustainability Reporting Award" (ASRA) for the best sustainability report in 2022
- Lenzing received the "Pioneer of Climate Stewardship in The Chinese Textile and Apparel Industry" award from CNTAC
- Presented with an ISPO award 2022 for the 100 percent TENCEL™ Lyocell solution for seamless functional wear

# About this report

[GRI 2-1, 2-2, 2-3, 2-4]

This report is the combined, consolidated, non-financial report for the Lenzing Group<sup>1</sup> (in accordance with Section 267a of the Austrian Business Code (UGB)) and for Lenzing Aktiengesellschaft (in accordance with Section to 243b UGB).

Since Lenzing operates at a global level with Group-wide approaches in various operating areas, all descriptions of management approaches and concepts concerning the material topics identified apply to both the Lenzing Group and Lenzing Aktiengesellschaft. For indicators for which meaningful figures can be provided, separate data for Lenzing Aktiengesellschaft can be found in the annex (in accordance with the legal requirements stipulated by the Austrian Sustainability and Diversity Improvement Act (NaDiVeG<sup>2</sup>) and the AFRAC recommendation. Information on the EU taxonomy can be found in the “Managing Sustainability” chapter.

The description of non-financial risks has been integrated into the 2022 Annual Report, while compliance is covered in the “Business ethics” chapter. Additional information concerning certain topics is provided on the Lenzing Group website. References can be found under the appropriate headings.

This report covers all the fully consolidated legal entities of the Lenzing Group. Detailed information can be found in the Lenzing Group’s Annual Report (note 3 and note 43).

The contents of this report reflect the topics that are relevant and material to sustainable development at the Lenzing Group. The management approaches for each material topic can be found in the relevant sections. The information on human resources applies to the Lenzing Group, including the two new plants in Thailand and Brazil. Specific environmental indicators have been calculated using data from all the production sites of the Lenzing Group except the new plants in Thailand and Brazil. They account for 100 percent of the company’s worldwide production volume. The new sites in Brazil and Thailand are fully consolidated, but not all the environmental data is available yet for these sites. Relevant data was included where available. 2014 was chosen as the base year for the data presented because Lenzing’s first GRI report, including the Lenzing Group sustainability targets was issued in 2017, with data covering 2016, 2015 and 2014. For the CO<sub>2</sub> figures, the baseline is 2017, as the corresponding target was developed in 2018/2019.

This report mainly covers data from 2022. Wherever possible, it also presents a series of data over three years (2020, 2021 and 2022)<sup>3</sup> to show progress and to make the information transparent, relevant, and comparable.

## Restatements

Due to the reclassification of capitalized borrowing costs, net interest from defined benefit plans and commitment fees from

EBIT/EBITDA to the financial result (see note 2 to the 2022 of Lenzing Group consolidated financial statements), there have been changes in the table of key figures (table 01) for 2020.

A recalculation of scope 3 emissions from 2017 to 2021 was necessary due to updated market pulp supplier data (tables 01 and 12). Due to subsequent corrections of the wastewater volumes at the Lenzing sites, there has been a reduction in water consumption of about 19 percent in the figures for 2020 (table 26).

The materiality analysis of the Lenzing Group was revised in 2021. This resulted in changes to the material topics. Detailed information can be found under “Materiality Analysis” and in the “[Materiality Analysis](#)” focus paper.

This report has been prepared in accordance with the Global Reporting Initiative (GRI) standards for the period 01.01.2022–31.12.2022. A detailed GRI content index can be found on the website. In accordance with the legal requirements, the reporting cycle for Lenzing’s sustainability performance is annual.

As a pioneer, Lenzing AG already implemented core elements of the new European Sustainability Reporting Standards (ESRS) into the Sustainability Report of 2022. The ESRS is the new EU framework for sustainability reporting and is a key element of the EU’s new Corporate Sustainability Reporting Directive (CSRD). It will be mandatory for Lenzing from 2024 onwards. The aim is to report environmental, social, and governance information in a standardized and consistent format. Lenzing is continuously working on optimizing the inclusion of ESRS in the report.

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All focus papers mentioned in this report can be found here: <https://www.lenzing.com/investors/publications>

<sup>1</sup> “The Group” (for better readability occasionally referred to as “Lenzing”) comprises Lenzing Aktiengesellschaft and its subsidiaries

<sup>2</sup> Nachhaltigkeits- und Diversitätsverbesserungsgesetz (Section 243b, Section 267a UGB)

<sup>3</sup> The financial year of the Lenzing Group is the calendar year (January 1 to December 31)

## Letter from the CEO

[GRI 2-22]



**Dear reader,**

We look back on an exceptional year in this report. 2022 was a year full of contrasts: on the one hand, it was characterized by unspeakable humanitarian suffering and economic turmoil owing to the Russian invasion of Ukraine. The consequences have since been felt in all parts of the world, with Lenzing and manufacturing industry as a whole hit by the adverse impact. Conversely, it was a year of outstanding successes that are undoubtedly a source of pride to me as Lenzing's Chief Executive Officer.

Let me start by looking at our business performance: the rise in energy and commodity costs from the first quarter of the year onwards and the collapse in demand during the third quarter had a significantly negative impact on Lenzing's earnings in the 2022 financial year. Revenues climbed by 16.9 percent year-on-year to EUR 2.57 billion, which was solely due to the rise in fiber prices, while EBITDA was down by 33.4 percent to EUR 241.9 million.

Lenzing's Managing Board reacted swiftly to this trend in earnings, launching a reorganization and cost-cutting program that had already made initial contributions to profits by the end of 2022. Once the program has been implemented in full, it will reduce the cost base by EUR 70 million on an annualized basis.

However, we will be doing more than just making structural changes to our cost base. Our aim is to keep developing in the spirit of continuous improvement and to emerge stronger from this crisis. This means we are taking a critical look at our processes in all parts

of the organization with a view to identifying where we can improve. We want to be ready to benefit from the future market recovery as quickly as possible. This crisis is likely to be with us for longer than that which materialized at the start of the COVID-19 pandemic. Nevertheless, we can look forward with great confidence, as the need for sustainable innovations in the world is undiminished, while the demand for environmentally friendly fibers for the textile and nonwoven industries will continue to grow.

It is our mission to change the world for the better. This is what really sets us apart from other companies and gives a sense of purpose to what we do. "Advance our world with better choices" – this is the bold purpose statement we developed in collaboration with our employees in 2022.

We have also continued to develop our strategy and will keep focusing on leveraging our specialties to drive profitable growth once we have successfully implemented our capital spending projects in Thailand and Brazil. We will keep pressing ahead with the issue of recycling, thus making a valuable contribution to transforming the textile and clothing industry from a linear to a circular economy model. We remain a sustainability champion – recent top marks from CDP, EcoVadis, MSCI and other respected environmental organizations and rating agencies are evidence of this – and we have every intention of becoming a circular economy champion too.

Alongside the operating targets, we have also set ourselves ambitious financial goals: we aim to increase our EBITDA – with an

ROCE of over 12 percent and assuming a normal economic environment – to EUR 1 billion by 2027. We will leave no stone unturned in working towards this lofty target over the coming years.

A crucial part of our Lenzing Purpose and our Better Growth corporate strategy is that we will not be satisfied with reducing negative impacts. Instead, we aim to create even more positive benefits by, for example, working to further enhance diversity and gender equality within the company, as well as biodiversity. We have also made further progress on our climate targets by migrating two more plants to a renewable electricity supply. Introducing sustainability clauses to contracts with suppliers marks another logical step in underpinning our role as a pioneer.

At this point, I would like to highlight the successful investment projects that we have implemented or significantly moved forward this year, starting with the launch of the world's largest lyocell plant in Thailand. Thanks to this new and ultra-modern plant, we are better placed to meet the growing demand for environmentally-friendly TENCEL™ and VEOCEL™ branded lyocell fibers. In future, we will be able to provide the pulp required for the production of these fibers from our facility in Brazil, which we also successfully commissioned this year. Despite numerous challenges, both projects were realized on schedule and within budget, and we are also well on target in terms of the quantities sold. These are achievements we at Lenzing can be rightly proud of.

We are also continuing to invest in our existing production plants so that we can tailor our product mix to our customers' needs and constantly improve our environmental footprint. In China, following the imminent conversion of a production line, we are now able to offer locally produced TENCEL™ Modal fibers to our customers for the first time. In Indonesia, we have made substantial progress in refitting existing production capacities, which will allow us to offer significantly better LENZING™ ECOVERO™ branded viscose fibers in future.

All investment projects are also helping us to meet our climate targets. We plan to halve our carbon emissions by 2030 and achieve carbon-neutral production by 2050. Both targets were recognized by the Science Based Targets Initiative in 2019. As a result, we remain the only provider of wood-based cellulose fibers on the market. We are already in a position to operate both plants in Thailand and Brazil on a carbon-neutral basis. In Brazil, we can even feed a considerable portion of surplus energy into the public grid.

The topic of energy has seldom been as pressing as it has been this year and, like many industrial companies, we have been forced to accelerate the process of reducing our dependence on external energy supplies, especially at our European plants. Against this backdrop, we are particularly pleased to have commissioned the largest photovoltaic system in Upper Austria at our headquarters in Lenzing in 2022.

I would also like to take this opportunity to offer our heartfelt thanks to you – our investors, customers and partners – on behalf of the Lenzing Managing Board. I am conscious of the fact that turbulent times such as these invariably present new and unexpected challenges. This makes your trust in our strategy and our sustainable, innovative products all the more valuable.

We have continued to improve our multiple award-winning reporting to suit our readers and have optimized the digital solutions on offer. This report offers a detailed insight into the company's current situation, as well as its activities and achievements in the field of sustainable development. In all of these aspects, we have shone a spotlight on the people who, thanks to their commitment, made a positive contribution to Lenzing's success in 2022 and are driving the necessary transition from a linear to a circular economy model in the textile and nonwoven industries.

Let me stress once again that we have adopted the right strategy in these turbulent times. I firmly believe that, thanks to Lenzing, we are ideally positioned to meet the growing global demand for sustainable solutions that are fit for the future. We will certainly continue to develop as a champion of circularity and play a pioneering role in this field.

In summary, I hope you enjoy reading our financial and non-financial reports and that they provide you with a lot of new food for thought.

Yours sincerely,

**Stephan Sielaff**

# Impact of the war against Ukraine on the Lenzing Group

In addition to unspeakable humanitarian suffering, the war against Ukraine has led to severe economic turmoil, which has since had an impact on all regions of the world and has also had an adverse effect on the Lenzing Group as well as manufacturing industry as a whole. The European energy crisis and high inflation in large parts of the world as a result of the Russian invasion of Ukraine had a significantly negative impact on global economic events during the year under review. Consumer confidence, initially in Europe and the USA, and subsequently also in China, fell to long-term lows and has since been slow to recover.

The International Monetary Fund (IMF) revised down its growth forecasts several times in the course of the year. According to the latest calculations, global growth is expected to be 3.4 percent in 2022. For 2023, the IMF assumes growth of 2.9 percent due to the ongoing multiple crises.

Sentiment in the textile and nonwovens industry deteriorated from August of the previous year onward, and satisfaction with the business situation steadily dropped to new historic lows. More recently, the outlook brightened again, although market players remained concerned about subdued demand.

Like the manufacturing industry as a whole, the Lenzing Group was increasingly affected by the extreme developments on the global energy and raw material markets in 2022. The market environment deteriorated significantly, particularly in the course of the third quarter, and the deteriorating consumer climate put additional pressure on Lenzing's business performance.

In addition to the decline in demand, the trend in earnings reflects the increase in energy and raw material costs in particular. Against the backdrop of these developments and the significant deterioration in the market environment, the Lenzing Managing Board established a reorganization and cost reduction program. The program is already being implemented and is expected to save at least EUR 70 million in annualized costs after full implementation.

The savings will largely come from the reorganization and reduction in material costs, but personnel measures will also have to contribute to the target and will result in savings across three areas.

One-third will be realized from reductions in working hours and the implementation of flexible working time models, one-third from not filling positions that become vacant due to retirement and natural fluctuations, and one-third from job cuts.

The social plan was negotiated with the Works Council in a highly constructive spirit and agreed as soon as possible. The Managing Board and the Works Council of Lenzing AG consider it part of their responsibility to make provision for cases where job losses cannot be avoided. The social plan assures those affected that negative consequences will be cushioned in the best possible way.

Structurally, Lenzing continues to anticipate increasing demand for environmentally friendly fibers for the textile and clothing industry as well as the hygiene and medical sectors. Lenzing is therefore very well positioned with its Better Growth strategy, and will continue to drive both specialty growth and its sustainability goals, including the transformation from a linear to a circular economy model.

The war against Ukraine and its economic impact also affected the achievement of the Lenzing Group's ambitious climate targets. CO<sub>2</sub> emissions of the Lenzing Group decreased significantly compared to the previous year. However, this came about due to lower production volumes as a result of the deterioration in the market situation and the planned measures taken to reduce CO<sub>2</sub> emissions.

The war against Ukraine increased public awareness of the need for an energy supply that is independent of fossil fuels. In order to make itself less dependent on global energy markets, Lenzing is increasingly reliant on electricity generation from renewable energies, especially at its Austrian sites, thus accelerating the decarbonization path it embarked on some considerable time ago in line with its strategic targets.

In line with our social responsibility, employee benefits remained unaffected by market developments. No changes in this context are expected in 2023 either.

# Lenzing Group: a brief portrait

Based in Austria, the Lenzing Group (Lenzing Aktiengesellschaft and its subsidiaries) is one of the world's leading producers of dissolving wood pulp, and cellulosic fibers, with production sites in major markets and a global network of sales and marketing offices.

## Lenzing Group

Table 02

	2020	2021	2022
Employees <sup>a</sup>	7,358	7,958	8,301
Revenue	EUR 1,635.6mn	EUR 2,194.6mn	EUR 2,565.7mn
EBITDA	EUR 192.3mn	EUR 362.9mn <sup>b</sup>	EUR 241.9mn
Total assets	EUR 4,163.0mn	EUR 5,322.8mn	EUR 5,525.0mn
Equity	EUR 1,881.4mn	EUR 2,072.1mn	EUR 2,025.9mn
Liabilities	EUR 2,281.6mn	EUR 3,250.7mn	EUR 3,499.1mn
Total number of operations	18	18	19
thereof production sites	9 <sup>c</sup>	9 <sup>c</sup>	9
Sales and marketing offices	9	9	10
Sales volume fibers	787,000 t	909,000 t	814,430 t

a) Employees (incl. apprentices, excluding supervised workers) in Austria, the Czech Republic, United Kingdom, USA, China, Indonesia, India, Taiwan, Thailand, Türkiye, Korea, Singapore, and Brazil.

b) Reclassification of capitalized borrowing costs, net interest from defined benefit plans and commitment fees from EBIT/EBITDA to the financial result (see note 2 of the Group consolidated financial statements 2022).

c) Including construction sites in Brazil and Thailand

For more information on detailed financial figures, please see the Annual Report.

## Nature of ownership

[GRI 2-1]

Lenzing Aktiengesellschaft is a publicly traded company. Its shares are listed on the Vienna Stock Exchange. In 2022, its ownership structure was as follows:

The Austrian B&C Group was the majority shareholder of Lenzing AG with an investment of ca. 52.25 percent plus two shares as of December 31, 2022. The Goldman Sachs Group, Inc. held approximately 6.97 percent of Lenzing shares. The free float equaled approximately 41.0 percent on the reporting date and was distributed among Austrian and international investors. The Lenzing Group did not hold any treasury shares as of December 31, 2022.

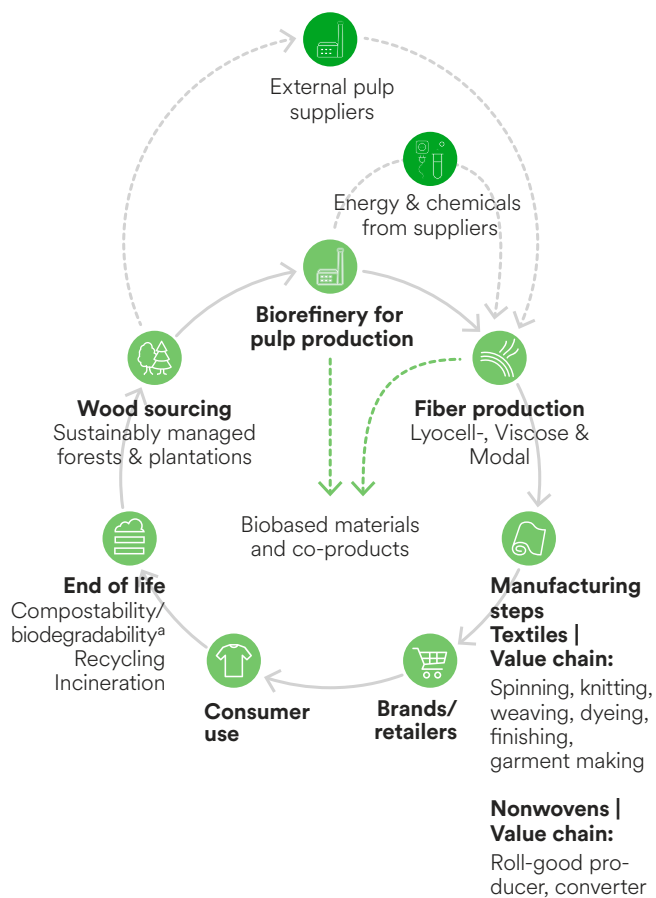
# Value creation at the Lenzing Group

[GRI 2-6]

The Lenzing Group is committed to the ecologically responsible production of fibers made from the renewable raw material of wood grown in sustainably managed forests and plantations. As an innovation leader, Lenzing partners with global textile and nonwoven manufacturers and drives many new technological developments.

## Value chain

Figure 01



a) Applies to TÜV certified biodegradable and compostable LENZING™ fibers. The compostability and biodegradability of final consumer textile and nonwoven products depend on the material composition (fiber blend) and processing in the value chain steps.

Lenzing’s product portfolio ranges from dissolving wood pulp as the basic raw material to generic fibers and innovative specialty fibers as well as energy, biobased biorefinery products, and co-products. Lenzing’s own pulp production at its sites in Lenzing (Austria), Paskov (Czech Republic) and Indianópolis (Brazil) is based on a biorefinery concept, completely utilizing the raw material wood.

The Lenzing Group combines comprehensive expertise in operating pulp and biorefinery processes with decades of experience in three major fiber process technologies:

- Viscose (rayon)
- Modal
- Lyocell

Further developments and technologies have resulted from the above-mentioned processes. For more information, please see the “Net-benefit concept” section or the [Lenzing website](#).

The Lenzing Group’s high-quality fibers form the basis for a variety of nonwoven and textile applications ranging from elegant clothing and versatile denims to high-performance sports apparel, luxurious bed linen, and sustainable footwear. Due to their consistently high quality Lenzing fibers are also highly suitable for hygiene and personal care products as well as technical applications.

The Lenzing Group’s business model goes far beyond that of a traditional fiber producer. Together with its customers and partners, Lenzing develops innovative products across the value chain, creating added value for consumers. The Lenzing Group strives to achieve the efficient utilization and processing of all raw materials and offers solutions to help redirect the textile sector towards a closed-loop economy. In order to reduce the speed of global warming and to accomplish the targets of the Paris Climate Agreement and the “Green Deal” of the EU Commission, Lenzing has a clear vision: to make a net-zero future come true.

Lenzing is at the start of a long value chain in the textile and nonwovens industry that comprises several processing steps. The Lenzing Group’s business model is based on intense collaboration and innovation support across all stages of this value chain. As a raw material producer, the company is exposed to largely the same risks and opportunities as the value chain as whole.

### **Supply and sourcing**

The principal raw materials for producing Lenzing's fibers are wood and process chemicals. The company uses dissolving wood pulp from its own production operations and from external suppliers.

### **Dissolving wood pulp and cellulosic fiber production**

Production takes place in two stages: first, the production of dissolving wood pulp and second, the production of fibers based on dissolving wood pulp. Lenzing's own dissolving wood pulp is produced in three biorefineries at sites in Lenzing (Austria), Paskov (Czech Republic) and Indianópolis (Brazil). Lenzing aims to use state-of-the-art sustainable production technology.

This entails high resource efficiency, high chemical recovery rates and, where possible, closed loops for process chemicals and water.

Bioenergy and biorefinery products are generated as well. Lenzing combines its comprehensive expertise in pulp and biorefinery technologies with decades of experience in cellulosic fiber production.

### **Down-stream manufacturing**

As shown in figure 01 under "Manufacturing steps", the customers in Lenzing's downstream value chain use the fibers to manufacture textile, nonwoven, or industrial products.

Lenzing works closely with value chain partners from direct customers to the retail level in the textile and nonwovens sector and for industrial applications - to provide expertise in processing as well as in developing innovative applications.

### **Distribution and use phase**

Finished products are distributed after manufacturing and enter the consumer use phase.

### **End of life**

TÜV certified biodegradable and compostable LENZING™ fibers are as the name suggests compostable and biodegradable. However, the compostability and biodegradability of final consumer textile and nonwoven products depend on the material composition (e.g. fiber blend) of the product and processing in the value chain.

# The locations of the Lenzing Group

[GRI 2-1, 304-1, 413-2]

## Locations

Figure 02

Numbers = Nominal capacities as at December 31, 2022



\* Airdry