focus paper

Sustainability strategy
“Naturally positive”
Issue April 2023

Naturally positive

Lenzing
Innovative by nature

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The sustainability strategy of the Lenzing Group

New corporate strategy “Better Growth”

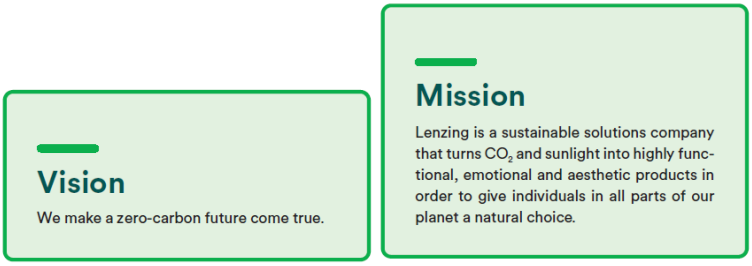
As Lenzing has grown and advanced in recent years, it was needed to make sure that the company could maintain this momentum within an industry that has also changed. In 2022, a new corporate strategy called “Better Growth” was defined, which places emphasis on expanding Lenzing’s foothold as a sustainability leader in a volatile economic environment.

Four strategic drivers were identified that map out a clear path ahead:

- Sustainability, moving from linear to circular
- Innovation to transform the cellulose industry
- Premiumisation through customer-centric solutions
- Excellence with a value-driven mind-set

These drivers strengthen differentiation and competitiveness to help Lenzing to achieve better growth across different market segments.

“Naturally positive” sustainability strategy



Our sustainability vision

Our passion is to provide truly sustainable solutions for a growing world. We create a positive impact for the people we work with, the consumers we serve, and the society and environment in which we operate. In doing so, we are commercially successful.

Our sustainability mission

We are change agents and collaborate with our suppliers and value chain partners to catalyze change for the better. We actively contribute towards improving environmental performance throughout the value chain and, consequently, in final products. We promote social wellbeing. The creation of more positive impacts and benefits is the guiding light for our innovation and business practices.

Naturally positive

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Figure 1: Strategic focus areas of sustainability in the Lenzing Group

“Naturally positive”, the Lenzing Group’s sustainability strategy, was developed from the results of the materiality analysis and is firmly rooted in the Lenzing Group’s Better Growth strategy. Within the dimensions of People – Planet – Profit, this strategy defines the sustainability areas in which Lenzing can do the most to create a more sustainable world. It is the basis for Lenzing’s approach towards contributing to the United Nations’ Sustainable Development Goals (SDGs).

Three strategic principles

Driving systemic change

Complex global challenges call for a collaborative approach to designing systemic solutions that involve many stakeholder groups. As a leader in wood-based cellulosic fibers, Lenzing has a particular responsibility and an ambition to help raise the bar for sustainability in the textile and nonwovens industries. Transparency and traceability are a prerequisite for fostering trust and building long-term relationships. With its contributions to developing industry-wide methods, tools, and approaches, Lenzing is helping the industry to progress on its sustainability roadmap by overcoming critical challenges. The sustainability targets for assessments and disclosures with FEM, FSLM, ZDHC, supplier engagement and for physical and digital traceability are contributing to this change.

Advancing circularity

In line with Lenzing’s circular economy vision, “We give waste a new life. Every day”, Lenzing is driving the industry towards a fully-fledged circular economy by striving to give waste a new life in all aspects of its core business and by co-developing circular solutions with potential partners inside and outside the current value chain to close loops wherever possible. This vision is based on Lenzing’s determination to create value with as little virgin resources as possible and reduce the use of fossil carbon in the company and the value chain while improving sustainability performance.

The company unites the cellulosic fiber cycle of its wood-based products (biological cycle) with its innovative technologies that focus on closing loops in the production and recovery of raw materials and chemicals (technical cycle).

Dedicated targets for the development of recycled content based fibers and circular business models with value chain partners are contributing towards this principle.

Greening the value chain

Lenzing's responsible practices and innovative products enable its customers and value chain partners to improve their environmental performance and achieve their sustainability targets and commitments. Responsible sourcing practices, water stewardship, decarbonization, and sustainable innovations are the basis for Lenzing's efforts in greening the value chain. The sustainability targets for air emissions, water emissions, pollution, and climate protection are the cornerstones of Lenzing's responsible entrepreneurship and act as innovation drivers.

Strategic focus areas

Within the three principles described above, Lenzing identified seven focus areas in which the Lenzing Group substantially contributes to creating positive impacts and benefits:

- Raw material security
- Water stewardship
- Decarbonization
- Sustainable innovations
- Empowering people
- Partnering for systemic change
- Enhancing community wellbeing

Lenzing sets targets in these areas to further advance its performance and positive impact. These focus areas are directly contributing towards several Sustainable Development Goals (SDGs).

Raw material security

Lenzing's long-term business success depends on the availability and quality of responsibly sourced and sustainably manufactured raw materials. Wood, dissolving wood pulp and chemicals such as caustic soda, carbon disulfide and N-Methylmorpholi N-oxide are the most important basic materials for the Lenzing Group. Lenzing strives to improve the efficiency with which natural resources are used. This encompasses the design, manufacture and use of efficient, effective, safe, and more environmentally benign chemical products and processes. The company focuses on responsible sourcing practices through assessments and certifications, responsible consumption, and the highly efficient use of wood through biorefinery.

Growing global demand for wood-based biomass and alternative land use is putting pressure on the world's forests, which provide fresh water, oxygen, climate regulation, flood resilience, biodiversity, recreation, and valuable renewable raw materials to society.

Lenzing promotes conservation solutions to protect ancient and endangered forests. Innovation of alternative cellulose sources is a strategic priority for the Lenzing Group, for example textile recycling. For more information please see "Wood and pulp" focus paper.

Water stewardship

Water is a precious resource and its increasing scarcity in many parts of the world constitutes a threat to people, the environment as well as to economic development. Poorly managed wood plantations can cause pressure on the regional water balance. Lenzing procures certified wood from sustainable managed forests and therefore mitigates impacts relating to water stress. On the other hand, some materials used in the textile supply chains occasionally create high water impacts through both water consumption and pollution. Key topics for water stewardship are the efficient use of water in production and the use of state-of-the-art wastewater treatment technologies.

Lenzing provides fibers with a low water impact for the growing world and innovates products that omit downstream value chain steps. This substantially reduces water use and impacts. At the end of life, Lenzing's fibers are biodegradable and compostable in marine and freshwater environments and therefore do not contribute to microfiber pollution, unlike fossil raw material-based fibers.

Decarbonization

Global heating is one of today's most pressing challenges, calling for collaborative solutions involving a multitude of relevant stakeholders, from value chain partners to authorities.

Dissolving wood pulp and fiber production are energy-intensive processes. The Lenzing Group will substantially reduce its CO_2 emissions in the coming years through a number of corresponding measures. In line with the Paris Agreement and the UN SDG 13, in 2019, the Lenzing Group set an ambitious science-based target (SBT) of a 50 percent reduction in CO_2-emissions (Scope 1, 2 and3) per ton of product by 2030 compared to a 2017 baseline. This not only includes emissions from existing production processes, but also a strong focus on low-CO_2 energy sources and production processes in the construction of new pulp and lyocell plants. Further, Lenzing strives to reach net-zero CO_2 emissions by 2050.

Sustainable innovations

Sustainable innovations are those that improve the prosperity of our society within the limits of our planet. Sustainable innovations include substantial efficiency improvements of existing technologies, technological breakthroughs, driving systemic change through forward solutions and business models on a large scale. These innovations create net-benefit products and solutions offering positive impacts and benefits to the environment, society, and value chain partners that are better than most competing alternatives in the market. Sustainable innovation is a cross-cutting theme and is embedded in all other key focus areas such as raw material security, water stewardship, decarbonization, and partnering for systemic change.

Empowering people

The Lenzing Group is committed to conducting business in a manner that respects the rights and dignity of all people.

People are at the core of the company's business success. People who take ownership and feel able to take positive action drive a successful transformation to a more sustainable society and economy. Empowering the group's own employees and nurturing future leaders are key activities for driving improvements in sustainability. The Lenzing Group also motivates partners along the value chain to be change-makers and drivers of sustainability.

Partnering for systemic change

The world today is more interconnected than ever before. Improving access to technology and knowledge is an important way to share ideas and foster innovation.

Complex global sustainability challenges call for a collaborative approach to designing systemic solutions, involving many stakeholder groups. Transparency is a prerequisite for fostering trust and long-term relationships. Guided by the United Nations Sustainable Development Goal SDG 17: Partnerships for the goals, the Lenzing Group regularly engages with a wide range of stakeholders and business partners in order to integrate different

perspectives, understand global trends, and mitigate risks. Lenzing strives to identify and develop cross-industry business cases to make progress on the circularity of both the Lenzing Group and the industry.

With its contributions to developing methods and tools, Lenzing helps the industry to progress on its sustainability roadmap.

Enhancing community wellbeing

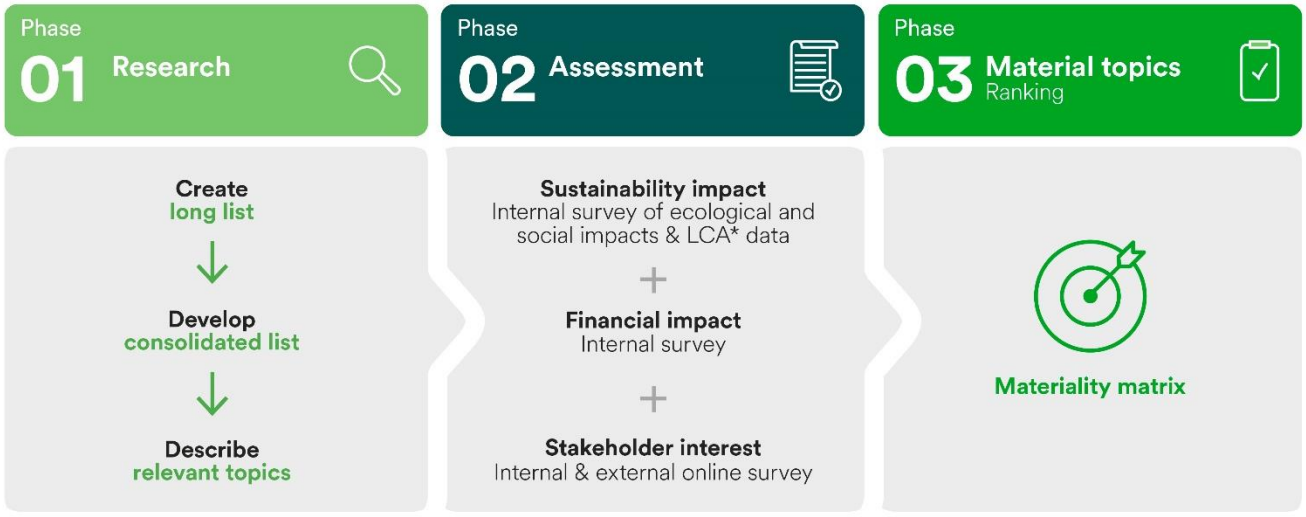
The Lenzing Group's various production sites operate in their respective ecological, social and economic environments. Lenzing's operations and their regional partners are mutually dependent, sharing opportunities, but also challenges. Community wellbeing is therefore a prerequisite for the company's license to operate.
As a good corporate citizen, the Lenzing Group promotes the beneficial development of the communities and regions where it operates. This is achieved through safe and environmentally responsible operations, fair business practices and contribution to local economic development and community life. For more information, please see the "Social responsibility" focus paper.

Materiality analysis

Regular updates of the materiality analysis are an integral part of Lenzing's sustainability strategy. In 2017, Lenzing presented its new "Naturally positive" sustainability strategy. 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. This means that both the influence of the environment on the company and the influence of the company on the environment were examined and supplemented by the financial consideration of these influences.

Development of the materiality analysis

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



* LCA = Life cycle assessment

Figure 2: Development of the materiality analysis

The **first phase** was dedicated to defining the potential material topics. Around 300 internal and external topics and trends in the environmental, social and governance (ESG) domain were identified for the present and future. This list of topics was divided according to ESG criteria and then summarized, which yielded the 16 potential material topics (i.e. the short-list).

The **second phase** was to prioritize the potential material topics with the help of external and internal stakeholders. For this purpose, a stakeholder survey and an impact analysis were carried out in order to be able to compile a topic ranking in the third phase of the process.For each of these topics, a brief description of the impacts, risks, opportunities, expectations and current situation was prepared and a questionnaire was created. This questionnaire was sent worldwide to employees at different levels, the Supervisory Board, investors, suppliers, customers, partners from the value chain, brands, insurance companies and the media. The feedback received from stakeholders regarding the relevance of the different topics, have been considered in the final materiality matrix.

In addition, an impact analysis of these topics was carried out with 40 employees from various areas who are also involved in sustainability reporting on ecological and social impacts. These experts were selected from the areas of business management, risk management, sustainability, finance, etc.
In the **last phase**, the impact analyses and the stakeholder survey results have been compiled to the final materiality matrix, which allowed ranking the issues and thus defining the material issues for the company.

Materiality analysis – allocation of topics Table 01

Material aspects	Strategic focus area	NaDiVeG	ESRS	SDG
Circularity & resources	Partnering for systemic change, Sustainable innovations	Environmental matters	E5 Resource use and circular economy	9, 11, 12, 17
Climate & energy	Decarbonization	Environmental matters	E1 Climate change	7, 13, 17
Responsible wood sourcing	Raw material security	Environmental matters	-	15
Biodiversity & ecosystems	Raw material security	Environmental matters	E4 Biodiversity and ecosystems	15
Sustainable innovation & products	Sustainable innovations	Environmental matters	E2 Pollution, E3 Water and marine ressources, S4 Consumers and end-users	9, 12, 17
Health & safety	Empowering people	Employee-related matters	S1 Own workforce	3
Human rights & fair labor practices	Empowering people	Employee-related matters, Respect for human rights	S3 Affected communities, S1 Own workforce	5, 8, 10
Business ethics	Empowering people	All non-financial matters	G1 Business ethics	16
Digitalization & cyber security	Sustainable innovations	All non-financial matters	-	9, 8, 16
Further sustainability aspects				
Supply chain sustainability	Raw material security, Partnering for systemic change	Environmental matters, Respect for human rights	-	8, 12, 17
Water stewardship	Sustainable innovations	Environmental matters	E3 Water and marine ressources	6
Community wellbeing	Enhancing community wellbeing	Social matters	S3 Affected communities	1, 3, 11
Diversity, inclusion & equal opportunity	Empowering people	Employee-related matters, Respect for human rights	S1 Own workforce	5, 10
Employee empowerment & development	Empowering people	Employee-related matters, Respect for human rights	S1 Own workforce	5, 10

Table 1: Materiality analysis - allocation of topics

For more information on updating the materiality analysis, please see the "Materiality analysis" focus paper.

Net-benefit concept

Lenzing's net-benefit concept guides and shapes all major decisions.

Lenzing's net-benefit products offer positive impacts and benefits to the environment, society, and value chain partners that exceed those of most competing alternatives on the market. Net-benefit products take a life cycle perspective and thus include both upstream and downstream value chain processes. Customers can replace resource-intensive and polluting products with Lenzing's alternatives, thereby improving their product footprint and reducing supply chain risks.

The three strategic principles of the "Naturally positive" Sustainability strategy and the underlying focus areas are combined in the net-benefit concept.

Products and technologies with a net benefit

Modal

At the Lenzing site Modal fibers are produced using an integrated production process in which the raw material pulp is manufactured at the same site as the fiber itself. Raw material from beechwood and spruce is converted into cellulose and other biorefinery products. Beech forests grow naturally without the use of chemical fertilizers or artificial irrigation. Pulp production is energetically self-sufficient while supplying a significant amount of bioenergy for the entire fiber production process at the production site. Lenzing's modal fibers therefore generate around 80 percent less greenhouse gas in production than generic modal fibers (according to Higg-MSI).

Lyocell

Lyocell fibers from Lenzing are derived from the renewable raw material wood and produced in a closed-loop process, which transforms wood pulp into cellulosic fibers
with high resource efficiency and low ecological impact. This solvent-spinning process recycles process water and reuses the solvent at a recovery rate of more than 99.8 percent. Lenzing's lyocell fibers show around 50 percent lower greenhouse gas emissions than generic lyocell (according to Higg-MSI).

Pulp

Dissolving wood pulp is the raw material for Lenzing's fibers and predominantely produced in the company's own biorefineries. Lenzing's biorefinery process ensures that 100 percent of the wood is used to produce dissolving wood pulp for fiber production, biorefinery products, and bioenergy. All the pulp produced at Lenzing pulp production sites is totally chlorine-free. For more information, please see the "Raw material security" chapter in the Sustainability Report.

LENZING™ ECOVERO™ specialty viscose fibers and VEOCEL™ specialty viscose fibers with Eco Care technology

LENZING™ ECOVERO™ branded viscose (for textiles) and VEOCEL™ specialty viscose fiber with Eco Care technology (nonwovens) show a 50 percent reduction in greenhouse gas emissions and water impact compared to generic viscose (according to Higg-MSI).

TENCEL™ Modal with Eco Color technology

Fibers with this technologies incorporate pigments during fiber production and thus help avoid downstream and energy-intensive conventional dyeing processes. A fabric made from these fibers has 60 percent lower greenhouse gas emissions than conventionally dyed fabrics.

First launched in 2021, TENCEL™ Modal with Eco Color technology has been established as the solution to address the demand for eco-responsible fiber alternatives among denim brands and -retailers. The technology incorporates indigo pigment directly into TENCEL™ branded modal fibers using a one-step, spun-dyeing process. Such process delivers superior color fastness relative to conventional indigo dyeing. Compared with traditional rope-dyed indigo yarns, the production of TENCEL™ Modal fiber with Indigo Color technology saves around 99 percent of the water and electricity, 80 percent of the chemicals and even 100 percent of the heat energy in the dyeing and finishing of fabrics, and thus significantly reducing the ecological footprint of denim products. In 2022, TENCEL™ Model fiber with Indigo Color technology won the International Textile Manufacturers Federation (ITMF) Award for Sustainability and Innovation.

Carbon-zero TENCEL™ branded fibers

Lenzing launched new carbon-zero TENCEL™ branded lyocell and modal fibers for application in the textile industry and added its first nonwoven carbon-neutral lyocell fibers under the VEOCEL™ brand in 2021. The new fibers are certified by ClimatePartner in accordance with the ClimatePartner Protocol, the leading global framework for measuring greenhouse gas emissions.

The fibers help to lower carbon emissions across the supply chain. Four key levers – energy reduction, use of renewable energy, new technology innovation, and supplier engagement – are deployed to achieve Lenzing's carbon net-zero target for the long term. The three pillars of "Reduce", "Engage", and "Offset" actively contribute to lowering the product's carbon footprint by reducing emissions as far as the current technological and economic conditions allow. These products have the lowest carbon footprint in respective fiber categories and can therefore contribute to the further reduce the customers' upstream emissions. For more information, please see the "Climate & energy" chapter in the Sustainability Report.

TENCEL™ Luxe filaments

The TENCEL™ Luxe branded lyocell filament aims to become a key milestone for eco-couture fabrics in the premium luxury market. The closed-loop lyocell production process ensures low environmental impact due to low process water and energy use and raw materials consumption and state of the art recovery systems. TENCEL™ Luxe branded filaments produced with the Eco Filament technology avoid conventional yarn spinning, which is energy-intensive and predominantly based in regions that rely heavily on fossil-based electricity. For example, at the industry level, yarn spinning processes contribute to 28 percent of the total GHG emissions of the textile value chain (excluding use phase).

Lenzing fibers with recycled content – REFIBRA™ or Eco Cycle technology

In line with Lenzing's circular economy vision, "We give waste a new life. Every day", the current generation of innovative fibers, manufactured on a commercial large scale, use pre-consumer cotton scraps, post-consumer garments, and wood from sustainably managed forests as a raw material. The cotton material is recycled into pulp which is blended in a ratio of up to 30 percent with 70 percent of dissolving wood pulp to produce high-quality lyocell fibers for textile and nonwovens applications. This technology diverts tons of cotton scraps and post-consumer garments from entering landfills or incineration. The fibers are subsequently produced with high levels of resource efficiency in a closed-loop production process. For more information, please see the "Circularity & resources" chapter in the Sustainability Report.

LENZING™ Web Technology

The LENZING™ Web Technology is an innovative R&D development technology platform that allows a wide range of novel sustainable nonwoven materials to be produced from the raw material wood. The patented nonwoven web formation process – Lenzing holds more than 25 patent applications – starts with dissolving wood pulp and produces a directly formed cellulosic nonwoven fabric made of 100 percent continuous lyocell filament. This technology enables fiber and nonwoven production in only one step and sets new standards for the efficiency, circularity, and ecological sustainability of cellulose nonwoven fabrics. The flexibility of this technology and possible integration with other nonwoven technologies will enable the development of a wider range of new cellulosic materials and composite structures for highly engineered end use applications.

LENZING™ Acetic Acid Biobased

Lenzing's biorefinery technology converts wood into pulp, energy, and biobased biorefinery products. One of the biobased biorefinery products is LENZING™ Acetic Acid Biobased, which will be also available as carbon-neutral alternative to conventional fossil-based acetic acid, substantiated by a study conducted by an independent Life Cycle Assessment (LCA) consultant.

Sustainability targets, measures and progress

Lenzing set Group sustainability targets for the most important challenges in each of its strategic focus areas. To increase transparency, the corresponding implementation measures and target progress made during the reporting year are described.

Color code status

- On track
- Achieved
- Delayed
- New target

Sustainability targets, measures and progress

Table 02

		Target year	SDG
Sustainable innovations			
Target 1	To improve the Lenzing Group's specific sulfur emissions by 50 percent by 2023 (baseline 2014)[a]	2023	12
Measure(s)	Lenzing implements a sulfur recovery plant (CAP) upgrade at the Purwakarta plant (Indonesia)	2023	
Progress made in 2022	The project is in the full construction phase. The current global situation, with the war against Ukraine, a shortage of semiconductors and China lockdowns, is delaying several shipments from Europe and Asia. This is having a major impact on the project completion schedule. Weather conditions in Purwakarta, with heavy and frequent rainfall, are also impacting the construction activities. Based on the current situation, the start-up of the sulfur recovery plant is likely in the first half of 2023.		
Target 2	To offer viscose, modal and lyocell staple fibers with up to 50 percent post-consumer recycled content on a commercial scale by 2025	2025	9, 12, 17
Measure(s)	All fibers with recycled content offered by Lenzing contain a share of post-consumer waste	2022	
	Lenzing increases the recycled content from 30 to 40 percent for fibers produced with REFIBRA™f technology for textiles and with Eco Cycle technology for nonwovens	2023	
	Lenzing introduces its viscose and modal fibers with REFIBRA™ and with Eco Cycle technology with a minimum of 30 percent recycled content	2023	
	Lenzing and Södra collaboration will recycle 25,000 t of textile waste per year at Södra's Mörrum site[b]	2025	
Progress made in 2022	The joint efforts with Södra to develop a recycled pulp with a share of post-consumer waste on an industrial scale were successfully continued. Significant progress was made towards the development of a production line processing 25 kt of textile waste. Start-up of this plant is targeted for 2025. Overall, Lenzing continued with product and process development towards reaching the key target for 2025. The biggest challenges are adapting the recycled pulp for industrial fiber production and securing the supply of good quality recycled pulp for cellulose fibers. These challenges also led to a delay of at least one year in the first measure for 2022.		
Target 3	To innovate a new circular business model by closing the loops for post-consumer materials and partner with 25 key supply chain companies by 2025	2025	9, 12, 17
Progress made in 2022	The organizational structure was set up to create new business models. There have been initial discussions and scouting of brands and supply chain partners to develop collaborative pilot projects. Lenzing became a partner of the EU-funded CISUTAC (Circular and Sustainable Textile and Clothing) project together with 27 other consortium members, aimed at removing bottlenecks to enhance textile circularity in Europe. Additionally, Lenzing committed to joining the "Transform Waste into Feedstock" project within the EURATEX Rehubs Initiative led by Texaid.		
Target 4a	To achieve 'aspirational' MMCF level for ZDHC wastewater and air emission guidelines at Lenzing viscose facilities by 2024	2024	6, 12
Progress made in 2022	All Lenzing viscose sites - Lenzing (Austria), Nanjing (China), Purwakarta (Indonesia) - have continuously reported to the ZDHC Gateway on time in 2022. While the site in Lenzing has achieved the aspirational level as defined by the wastewater guideline, the sites in Nanjing and Purwakarta have developed their own action plans for further improvement in the coming two years. The ZDHC MMCF guideline was revised in 2022 and it has been extended to include lyocell fiber, among others. Lenzing will start to implement the guideline accordingly at all its fiber production sites in 2023.		

Target 4b	To achieve 'aspirational' MMCF level for ZDHC wastewater and responsible production guidelines at Lenzing lyocell facilities by 2028	2028	6, 12
Measure(s)	First ZDHC Gateway reporting of MMCF waste water guideline v2 at all lyocell sites[c] in 2023	2023	
	First supplier platform implementation and reporting of MMCF Guideline v2 - Responsible fiber production at all lyocell sites[c] in 2023	2023	
	Lenzing lyocell sites[c] achieves 'aspirational' level for wastewater and responsible production	2025	
	Lenzing site in Grimsby (UK) achieves 'foundational' level for wastewater and responsible production	2025	
	Lenzing site in Grimsby (UK) achieves 'aspirational' level for wastewater and responsible production	2028	
Water stewardship			
Target 5	To improve Lenzing Group's specific wastewater emissions (COD) by 20 percent by 2024 (baseline 2014)[a,b]	2024	6.12
Measure(s)	Lenzing implements a wastewater treatment plant upgrade at Purwakarta site (Indonesia)	2023	
	Lenzing implements a new wastewater treatment plant at Grimsby (UK) site	2024	
Progress made in 2022	The current global situation, with the war against Ukraine, a shortage of semiconductors and China lockdowns, is delaying several shipments from Europe and Asia. This is having a major impact on the project completion schedule. Weather conditions in Purwakarta with heavy and frequent rainfall, are also impacting the construction activities. The start-up is planned for the first half of 2023. In Grimsby, the Membrane Bio Reactor (MBR) route for the wastewater treatment plant was selected. The pilot plant, proving trials and designs have been completed. It is on track for commissioning and operation in the second half of 2024.		
Raw material security and biodiversity			
Target 6	To implement a conservation solution of 20 ha in Albania in combination with a social impact project by 2024	2024	1, 15
Measure(s)	Lenzing reforests 20 ha of degraded land in Albania	2024	
	Lenzing establishes a training center for local communities in Albania	2024	
	Lenzing supports interdisciplinary vocational trainings and school partnerships in Albania	Yearly	
Progress made in 2022	By the end of 2022, the first 12 ha have been reforested and more than 400 forest workers were trained in sustainble forest management. Student enrollment in the Shkodra Forest School is increasing. Tree seedlings are being grown with a survival rate of 85-90 percent in the new tree nursery for future restoration projects.		
Target 7	To implement conservation solutions on 15,000 ha at the new pulp site in Indianópolis (Brazil) by 2030	2030	15
Measure(s)	Lenzing increases the protected area in Brazil from 13,000 ha to 15,000 ha	2030	
Progress made in 2022	Lenzing achieved this goal in 2022 and increased the total conservation area in Brazil even further than the target, to 17,000 ha.		
Target 8	To engage in further conservation, biodiversity protection, and restoration activities in regions where forests are at risk or should be improved by 2025	2025	15
Progress made in 2022	Lenzing defined the guidelines to be taken into account for selecting (a) suitable project(s) based on different stakeholder criteria. Additionally, potential projects, partners and solutions performed by other players were identified. A potential combination of projects to be executed was selected in the reporting year and final alignment is planned for 2023.		
Partnering for systemic change			
Target 9	To engage suppliers, covering more than 80 percent of spend, to improve sustainability performance	Continuous	12, 17
Measure(s)	Lenzing assesses 95 percent of its top 200 suppliers (approx. 80 percent of spend) via EcoVadis, the Together for Sustainability Audit or an internal assessment/audit by 2025.	2025	
	Lenzing considers climate, water and chemical aspects in the procurement contractual process of its top chemicals suppliers	Continuous	
Progress made in 2022	Lenzing joined Together for Sustainability. The number of suppliers responding to the EcoVadis questionnaire more than doubled to 387. Sustainability clauses were included in the first suppliers contracts as part of the general conditions.		

Target 10	To improve transparency by implementing the Higg Facility Environmental Module (FEM 3.0) at all sites by 2019	**Achieved**	12, 17
Target 11	To implement and annually update FEM in all pulp and fiber production facilities and share verified modules with customers from 2024[d]	**2024**	12, 17
Measure(s)	Lenzing conducts self-assessments in existing sites in 2022 and first external verification by 2023	**2023**	
	Lenzing conducts self-assessments and trainings for new legal entities (Prachinburi (Thailand) and Indianópolis (Brazil)) in 2023 and first external verification by 2024	**2024**	
Progress made in 2022	Internal targets as well as group and site level roadmaps have been developed. Lenzing determined the expansion of FEM to new sites and adjusted the group roadmap accordingly. In 2022, Lenzing carried out internal FEM assessment and external training to prepare for the first external verification of Higg FEM in 2023. Preparation for new sites in Thailand and Brazil will start next year.		
Target 12	To achieve digital fiber traceability by having 500 value chain partners with blockchain technology by 2021	**Achieved**	9, 12, 17
Target 13	To increase physical traceability from TENCEL™ x REFIBRA™ and LENZING™ ECOVERO™ to 100 percent of Lenzing's textile special fibers by 2021	**Achieved**	12
Decarbonization			
Target 14	To reduce scope 1, 2, and 3 (purchased goods and services, upstream and downstream transport, and fuel and energy-related activities) greenhouse gas emissions by 50 percent per ton of fiber and pulp sold by 2030 (baseline 2017)	**2030**	7, 13
Measure(s)	Lenzing reduces 40 percent of specific CO_2 emissions per ton of product sold[b,e]	**2024**	
	Lenzing reduces 50 percent of specific CO_2 emisions per ton of product produced[e]	**2027**	
Progress made in 2022	Lenzing maintained its approach towards mitigating climate change by reducing its GHG emissions compared to baseline 2017. Detailed information on achievements in 2022 is available in the "Climate & energy" chapter.		
Target 15	To achieve net-zero CO_2 emissions by 2050 (scope 1, 2 and 3)	**2050**	7, 13
Measure(s)	Lenzing achieves 100 percent green electricity for four sites	**2024**	
	Lenzing phases out coal in its Nanjing (China) operations	**2022**	
	Lenzing installs on-site photovoltaic power generation at the Lenzing plant	**2022**	
	Lenzing increases the share of renewable energy consumed by the Lenzing Group and supplies excess bioenergy from the pulp production facility in Indianópolis (Brazil)	**2023**	
	Lenzing achieves scope 1 and 2 carbon neutrality at its new lyocell fiber production site in Prachinburi (Thailand) by using 100 percent bioenergy	**2023**	
	Lenzing engages 20 key suppliers, by spend and CO_2 impact, in order to reduce Lenzing's scope 3 emissions and incentivize the suppliers that help Lenzing offer more low-carbon-footprint fibers	**Continuous**	
	Lenzing engages and enables 50 percent of 'customers with approved SBT and commitment' (textile and nonwoven brands/retailers as well as manufacturers working with LENZING™; fibers) to fulfill their ambition by providing information on low GHG-footprint specialty products such as TENCEL™, LENZING™, ECOVERO™, and VEOCEL™ branded fibers	**Continuous**	
	Lenzing runs a campaign to reach 50 percent of TENCEL™ and VEOCEL™ customers (textile and nonwoven brands/retailers as well as manufacturers using the TENCEL™ and VEOCEL™ brands) to promote the use of innovative carbon-zero TENCEL™ products and climate care VEOCEL™ products	**Continuous**	
Progress made in 2022	Lenzing has commissioned the largest ground-mounted photovoltaic system in Upper Austria, which is expected to provide 5,500 MWh annually. This is expected to cut CO_2 emissions by some 4,400 tons per year. The transition to solely renewable electricity in Nanjing (China) is underway and expected to be completed in 2023. Phasing out coal in Nanjing (China) is ongoing, however the project was delayed due to long negotiations with gas stakeholders such as infrastructure and supply and the strict COVID-19 restrictions in China. The targeted carbon neutrality in (Prachinburi) Thailand was achieved in 2022. For more information, please see the "Climate and energy" chapter.		
Empowering people			
Target 16	To have a continuously valid third-party audited accredited social certificate for every Lenzing Group production (fiber or dissolving wood pulp) site by 2024[d]	**2024**	8, 12

Measure(s)	Lenzing implements and annually updates the Facility Social Labor Module (FSLM) at all pulp and fiber production facilities and shares verified modules with customers from 2024 onwards	2024	
Progress made in 2022	For the sites in Nanjing (China) and Mobile (USA): Completion of online assessment, preparation of on-site audits, completion of certification expected in Q1/23, training modules for all sites in preparation. For the sites in Austria and the Czech Republic, a different verification is being sought, as these two countries cannot be verified according to FSLM.		
Target 17	To enable a good life for people amplified by means of products offered by Lenzing and by respecting human rights, employee wellbeing, and diversity	Continuous	3, 5, 10
Measure(s)	Lenzing implements training courses for 75 percent of the workforce on diversity, discrimination, the non-discrimination policy, and human rights	2025	
	Lenzing increases its proportion of women to 22.5 percent in all positions graded 5a and above by 2025	2025	
	Lenzing establishes a working condition policy	2021	
Progress made in 2022	In 2022, further measures were taken to provide diversity training and publish a range of global guidelines to explain processes and benefits that impact employees' terms and conditions to ensure fairness and consistency across the Group. In order to get an overview of existing guidelines and policies to be included in the working conditions policy, several guidelines were reviewed and developed such as the Job Evaluation Guideline, Guideline for Creating a Job Description, Learning and Development Guideline and Talent Management Guideline. In 2023, it will be summarized in one (global) policy.		
Target 18	To continuously support the development of local communities near Lenzing production sites and support social welfare programs to 2025 and beyond	Continuous	1, 3, 11
Progress made in 2022	In 2022, Lenzing continued supporting numerous social and environmental initiatives for enhancing community development and wellbeing. Depending on local requirements, activities range from donations, sponsorships, health and medical care, scholarships and other educational programs, as well as local environmental projects. A current overview of activities conducted in 2022 at each site is provided in the "Social responsibility" focus paper.		

a) The target has the same production volumes and scope of facilities as the 2014 baseline (i.e. excluding the new legal entities in Prachinburi (Thailand) and Indianópolis (Brazil)).
b) Relevant for the Managing Board long-term incentive (LTI) bonus target
c) Lenzing (Austria), Heiligenkreuz (Austria), Mobile (USA), Prachinburi (Thailand)
d) The scope includes all Lenzing facilities, also the new legal entities in Prachinburi (Thailand) and Indianópolis (Brazil).
e) These intermediate targets are part of the Lenzing corporate strategy on the way to reach science-based target by 2030

Table 2: Sustainability targets, measures and progress

Stakeholder dialog

Engaging in a dialog means respecting the stakeholders, contributing with Lenzing's expertise and knowledge, and the opportunity to learn from the partners' perspectives. Each dialog starts with providing transparent information. This helps stakeholders to form an educated opinion, to assess risks, and to avoid misunderstandings by building trust. Furthermore, continuous trusting stakeholder relationships contribute to resolving existing tensions and avoiding potential conflicts. For more information, please see the "Stakeholder engagement" focus paper.

United Nations Sustainable Development Goals (SDGs)

Adopted by world leaders in September 2015 at a historic UN summit, the 17 SDGs came into force on January 1, 2016. The Goals are unique in that they call for action by all countries – poor, rich and middle-income – to promote prosperity while protecting the planet. The Goals serve as a framework for businesses to help create a more eco-responsible future by addressing such global challenges as poverty, inequality and climate change.

Lenzing recognizes its responsibility and sees its pioneering role in the textile and nonwoven industries as an opportunity to contribute to the achievement of sustainable development goals. Lenzing's sustainability strategy

and targets contribute towards these goals. For more information on Lenzing's approach to the SDGs, please see the "Sustainable Development Goals" focus paper.

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