



HOHENSTEIN

# HOHENSTEIN Sustainability Report 2023



# ABOUT THIS REPORT

This report outlines our targets concerning environmental, social and governance aspects. We share our key performance indicators (KPIs) of implemented measures and our continuous improvement plans for the coming years. These apply not only to the company itself, but also to our services.

Our Management Board attaches great importance to sustainability. Comments and perspectives from employees at all levels are included.

The report is based on data from January 1 to December 31, 2023. Due to rounding, figures and totals may not exactly reflect the absolute values.



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HOHENSTEIN

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# OUR COMPANY

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## OUR COMPANY

We are a family business with more than 75 years of experience of testing, certification and research. With roots in the textile sector, the Hohenstein testing range now includes both softline and hardline goods. Around the globe, more than 1,150 employees work on our services such as testing for harmful substances, performance and fit. Customers from all over the world receive all services from a single source: **Hohenstein supports companies throughout the value chain, from test procedures and certification to marketing.**

Hohenstein experts are experienced partners for more-sustainable materials, products and processes. As a founding member of OEKO-TEX®, the world's leading certifier of textile and leather goods, Hohenstein is one of its most important laboratories. For training and further education, the Hohenstein Academy provides online and classroom courses.

As a provider of a wide range of sustainability services, we have a responsibility to advance our own

sustainability measures. We want to lead by example and with the greatest possible transparency. We have published a sustainability report for our headquarters since 2020 and are stepping up our efforts every year.

With this report, we disclose to our stakeholders which measures have already been implemented, what we are currently working on and what goals we have set for the future.

### PROF DR STEFAN MECHEELS

CEO and owner



The Hohenstein family business has been practicing and adapting strong values since 1946. These values continue to shape our mission today. They are the signposts for our future - the core of what we do. Our culture is shaped by knowledge transfer, sustainability and partnership around the world. In addition to values such as honesty, trust, appreciation and responsibility, sustainability is enshrined in our credo as a fundamental part of our core values. Healthy growth and positive earnings help us to remain independent and successful. Here, we strike a balance between growth, size and profitability to ensure the long-term viability of the company. However, we can only be successful with dedicated employees. We encourage our employees to think and act entrepreneurially and to this end we create a participatory and open corporate culture. Intercultural skills and an openness to innovation are particularly important to us.



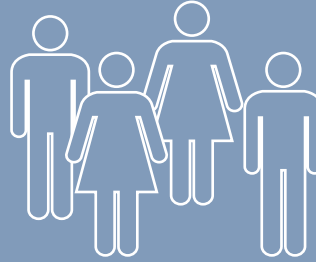
# FACTS AND FIGURES



**75**  
YEARS OF TEXTILE  
EXPERTISE



**3<sup>rd</sup>**  
GENERATION  
OWNERSHIP



**1,150**  
EMPLOYEES  
WORLDWIDE



SINCE **1953**  
PARTNER TO THE  
RAL QUALITY ASSURANCE  
ASSOCIATION



**31**  
YEARS OF THE OEKO-TEX®  
ASSOCIATION



**90**  
ACADEMY EVENTS IN 2023



OVER **10,000**  
CUSTOMERS



**6**  
COUNTRIES WITH  
ACCREDITED TESTING  
LABORATORIES



**40**  
CONTACT OFFICES



**3**  
BRANCH OFFICES

# HISTORY

## Our beginnings as a research and teaching institution

In 1946, Prof Dr-Ing Otto Mecheels founded Hohenstein as an independent and private-sector research and teaching institute for the textile and clothing industry. Between 1962 and 1995, his son, Prof Dr Jürgen Mecheels, developed Hohenstein into an internationally renowned, highly respected research and service centre. To this day, Prof Dr Stefan Mecheels has managed the business based on two pillars of the Hohenstein philosophy: a global orientation and unique expertise. The third-generation leader values responsible, sustainable action – both for the interests of the company and in the tailored solutions for customers throughout the value chain.

**1946**

The Hohenstein Research Institute is founded as an independent institution by Dr-Ing Otto Mecheels with teachers and students of the Prussian High School for the Textile Industry in Mönchengladbach. In 1952, Dr-Ing Otto Mecheels acquires Schloss Hohenstein.



**1952**

The German Certification Association for Professional Textile Services is founded and begins to award the RAL 992-1 quality certification mark for domestic and commercial linen.



**1956**

Dr Jürgen Mecheels develops the predecessor of today's skin model to measure the heat and moisture management of textiles.



**1962**

Dr Jürgen Mecheels assumes management of the Hohenstein Institutes. The newly built Technical Academy includes a climatic chamber for conducting wear tests.



**1968**

Hohenstein develops a human thermoregulation model called 'Charlie' to go beyond the skin model. In 2013, 'Sherlock' gets to work as the great-great-grandson of the 1968 manikin.



**1981**

Hohenstein develops HOSY, a computer-assisted compression measuring device. The further developed HOSYcan model has been used since 2018.

**1975**

After 20 years of textile training, the last class of textile chemists graduates from Hohenstein.



# HISTORY

**1995**

Prof Dr Jürgen Mecheels receives the Order of Merit of the Federal Republic of Germany. His son Dr Stefan Mecheels takes over management.



**1996**

The Institute of Hygiene and Biotechnology is founded. It is expanded in 2001 to include a cell and molecular biology lab. Hohenstein opens its first branch office in Turkey.



**1998**

UV Standard 801 is introduced for textiles with a proven UV protection factor. The first certificate is issued in Germany.

**1992**

Hohenstein become a founding member of the International Association for Research and Testing in the Field of Textile Ecology (OEKO-TEX®), which awards the label 'CONFIDENCE IN TEXTILES – tested for harmful substances according to OEKO-TEX® STANDARD 100'.



**2003**

The first Hohenstein Quality Label is awarded to indicate wear comfort.



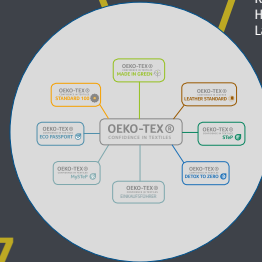
**2006**

Hohenstein is selected as one of the 365 places that stand for Germany's innovation and performance during the World Cup. More than 4,500 visitors come to Hohenstein Castle for the official awards ceremony.



**2013/16**

New buildings are named in honor of Otto Mecheels I and II. Around 270 employees work in the new 4,500 m<sup>2</sup> workspace.



**2017**

STANDARD 100 by OEKO-TEX® celebrates its 25th anniversary and over 160,000 certificates issued to 10,000 companies. Systematic development of the OEKO-TEX® portfolio has expanded comprehensive services for product responsibility and sustainability to the entire textile value chain.



**2018**

Redesign of the Hohenstein Quality Label.



**2019**

Hohenstein Academy relaunches with innovative, digital, time- and location-independent learning.



**2021**

Completion of the Hohenstein multistorey car park in Germany for employees and visitors.

**2022**

Rebranding of OEKO-TEX®.



**2022**

Sixth Hohenstein testing laboratory opens in Shanghai, China. Hohenstein employees over 1,000 employees in 40 countries.



HOHENSTEIN

**2023**

Hohenstein repositions brand and adapts logo.

# PARTNERSHIPS



## ZDHC APPROVED SOLUTION PROVIDER

Since 2018, we've been members of the ZDHC Roadmap to Zero Programme. We support their approach for implementation of sustainable chemistry, innovation and best practices in the textile, clothing and footwear industries to protect consumers and workers.

We are committed collaborating on these goals with brands, retailers, the chemical industry and other stakeholders.



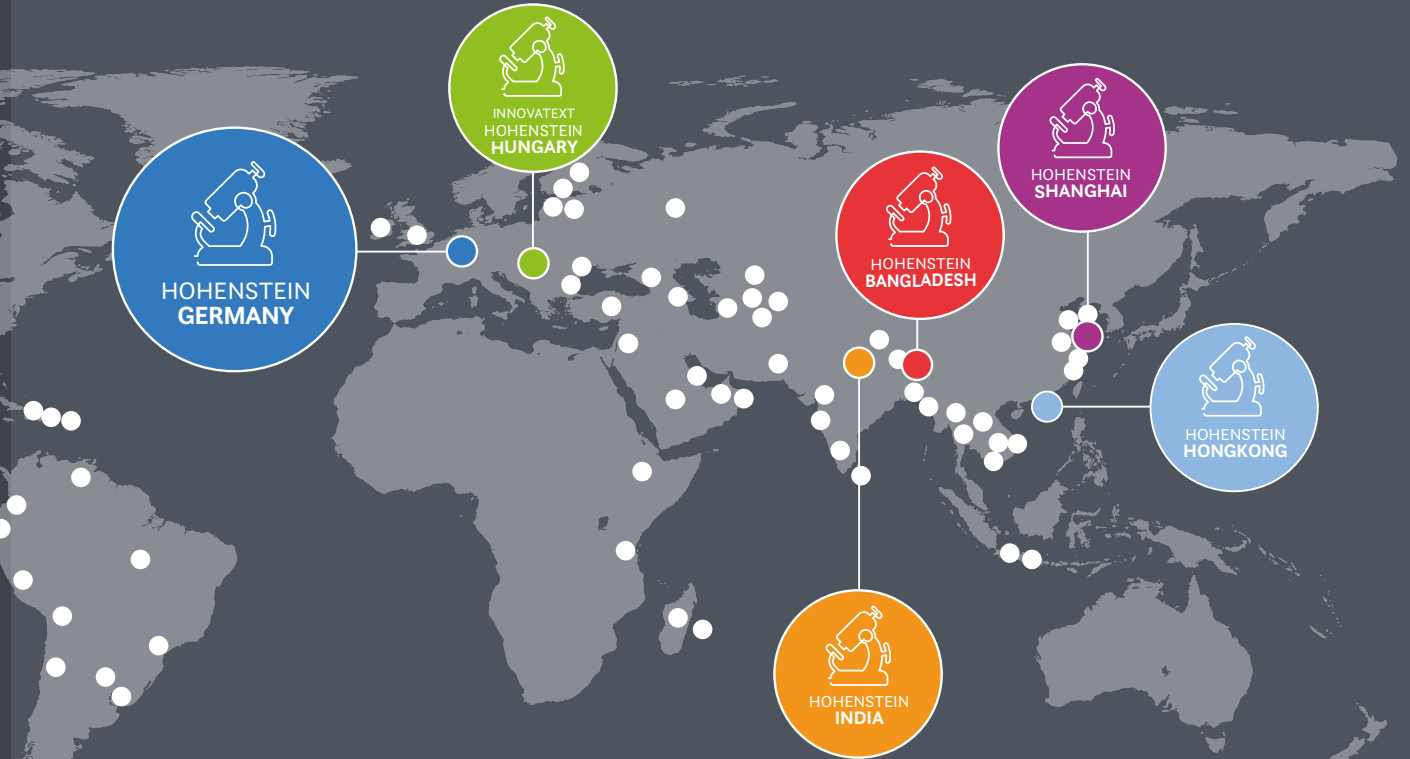
## EUROPEAN OUTDOOR GROUP

Hohenstein collaborates closely with the outdoor industry and has been a member of the European Outdoor Group (EOG) since 2022. Through the EOG, we work with other research centres and service providers to protect the environment and enable people to be active in nature. Through joint knowledge creation projects, we are currently working with the EOG on PFAS, which is a focus of the outdoor industry and current regulations.



# CURRENT DEVELOPMENTS

Around 650 dedicated employees currently work at the Bönningheim site, with 1,150 employees at five laboratory locations, three branch offices and 40 contact offices around the world. With our global network, the textile testing laboratories in Hong Kong, Shanghai (China), Dhaka (Bangladesh) and Gurugram (India) and Budapest (Hungary), we ensure that testing is conducted efficiently and in close proximity to the market. This international presence not only brings the benefit of local native-speaking expertise and globally consistent testing quality, but also helps to protect the environment. Our proximity to our customers enables us to shorten transport routes and significantly reduce the greenhouse gas emissions from indispensable logistics activities.



## CURRENT DEVELOPMENTS



### Always at the cutting edge of industry: new laboratory in Shanghai

We expanded our international network with another laboratory site in Shanghai. Since 2023, the new laboratory has complemented capacities in Hong Kong with testing and inspection services, thereby serving these important textile production hubs.

### Future-proofing: expansion of our testing scope with hardlines lab in Hong Kong

March 2023, Hohenstein acquired the DAkkS-accredited QAT Services Limited laboratory in Hong Kong. The existing employees' hard-goods expertise has now been integrated into the Hohenstein portfolio. The expansion is strategically important for Hohenstein and extends the testing spectrum beyond the textile industry, in which Hohenstein has been a firm fixture for decades. Since the acquisition, Hohenstein has been testing materials that come into contact with food, furniture, toys and much more.



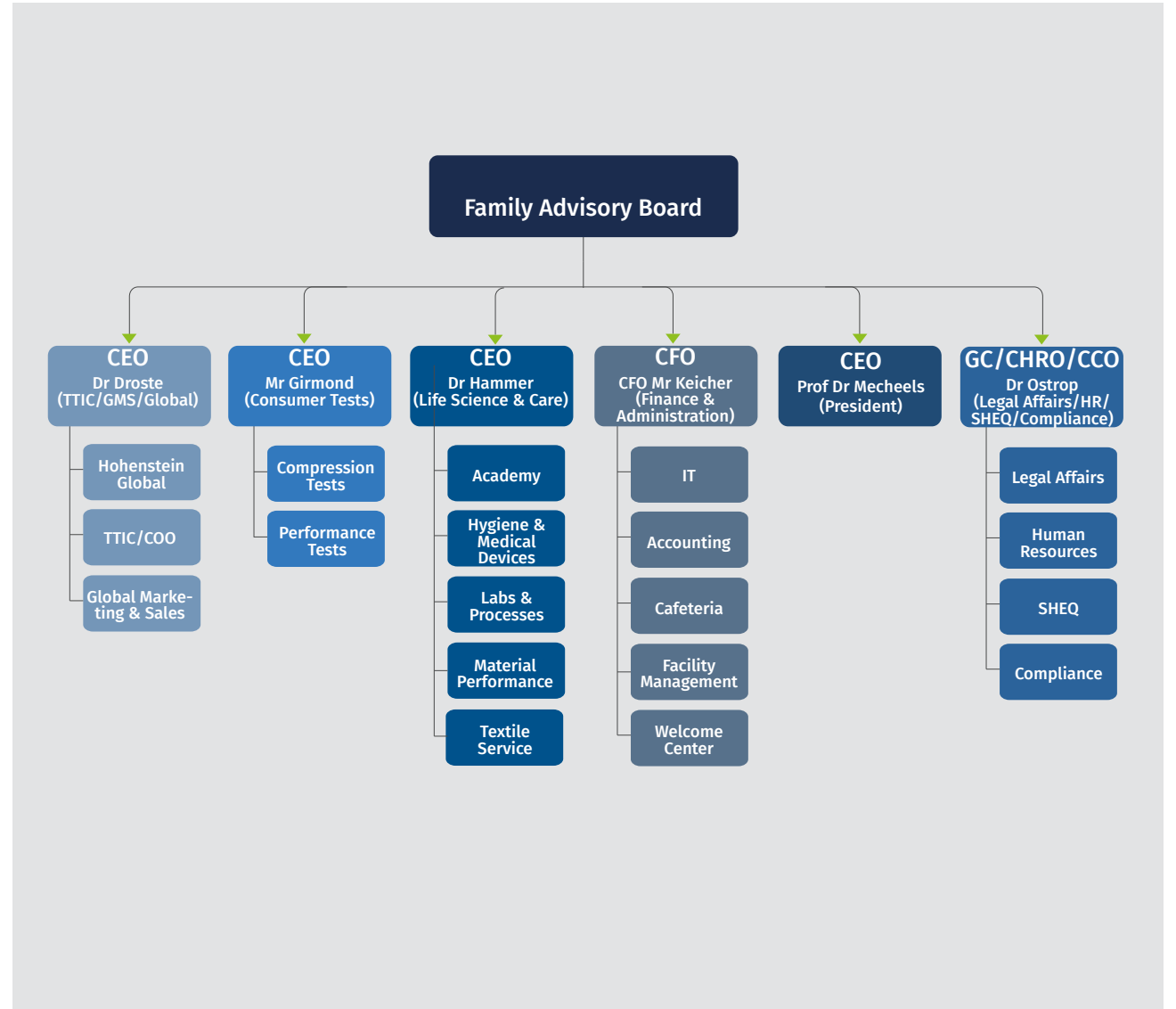


# STRUCTURE

## HOHENSTEIN | ORGANISATIONAL CHART

Along with owner, Prof Dr Stefan Mecheels, five managing directors sit on the Management Board. Dr Stefan Droste, Armin Keicher, Dr Timo Hammer, Florian Girmond and Dr Markus H. Ostrop are each responsible for a different business division and meet twice a month.

In addition, managing directors at each global location are responsible for local markets, which are structured according to different areas of expertise. These directors meet every two weeks. Information from these meetings is passed to the division and team heads and employees.



## STRUCTURE



PROF DR  
STEFAN MECHEELS



PROF DR  
ANDREAS WIEDEMANN



ANDREAS  
MECHEELS



JULIA  
MECHEELS



MATTHIAS  
MEY



FELIX  
KNOELL

## FAMILY ADVISORY BOARD

Our Family Advisory Board was formed in 2022. It acts as a strategic driving force and meets with the Management Board twice a year. The Advisory Board consists of five members with a wide range of expertise in different industries. They will provide advice on important business issues to ensure the company will continue for future generations.

### Members of the Advisory Board include:

Advisory Board Chair: **Prof Dr Andreas Wiedemann** specialises in legal advice for family businesses.

**Matthias Mey** is the Managing Partner and Management Board spokesperson for lingerie specialist, Mey. He brings extensive expertise from various positions in the textile industry as well as from his own family business.

**Felix Knoell** also comes from a family business. As Vice Chairman and Director Strategy & Innovation, he is responsible for the Knoell Group's global network and one of the leading experts in chemicals registration.

The **Mecheels families** are represented on the Advisory Board by shareholder Julia Mecheels, daughter of CEO Prof Dr Stefan Mecheels and his brother Andreas Mecheels, a further shareholder.



# COMPLIANCE

## Code of Conduct

We define binding rules of conduct with regard to social responsibility, legality, integrity, accuracy, confidentiality and fairness. We make every effort to implement and enforce these rules. We remedy any identified shortcomings as quickly as possible.

## Compliance Line | Whistle-blower system

Our digital whistle-blower system, introduced in 2022, supports our responsibility to conduct business with ethical principles. Trust, appreciation and quality are indispensable to our business activities. The whistle-blower system enables employees and stakeholders around the world to anonymously report actual or suspected misconduct – without personal consequences. The Compliance Officer receives the reports and seeks clarification for any necessary measures.



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# SUSTAINABILITY EXPERTISE

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Research

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Services

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HOHENSTEIN







## RESEARCH

In addition to testing and certification, our core competencies include application-oriented solutions from public research. Thanks to the close, interdisciplinary collaboration of textile engineers and natural scientists, we continuously expand our know-how and offer innovative services. We help customers from a wide range of industries develop new products and implement more sustainable practices. Hohenstein has contributed to the success of the textile industry for over 75 years, creating new opportunities for better, safer products.

**As a research institution with close ties to industry, we have a strong focus on practice.**

Our knowledge transfer immediately benefits companies that build on the research to innovate and expand markets. We are pleased that our innovations especially benefit small and medium-sized enterprises (SMEs). Even without a research team of their own, they can use our data for targeted developments.

A number of the methods developed for internal research projects are incorporated into our testing portfolio and offered to customers.

## RESEARCH

Hohenstein conducts publicly-, self- and industry-funded research projects, many focused on sustainable innovations. Here are some examples:

### **DiTex: digital technologies enable a resource-efficient, closed-loop, B2B textile industry**

In textiles, closed-loop suitability can mean recycling the raw materials from one high-quality shirt for use in a new high-quality shirt. This calls for innovations in textile design and recycling technologies. Especially important: we need business models that link manufacturers and recyclers beyond the product's use. This is where the DiTex project comes in. Since 2019, a consortium of scientists and textile companies has worked together to design and test of recyclable textiles for the rental industry.



### **TheForestCleanup research project**

This project promotes the development of biodegradable, yet functional tree shelters. For over 30 years, tree shelters have been used to protect young trees from animals or competing vegetation and to improve growth. Once the polypropylene/polyethylene shells have served their purpose, they often remain in the forest. Biodegradable materials would prevent long term litter.







**GMO quantification of cotton**

Hohenstein developed its own molecular biological detection systems for genetically modified cotton at all critical points in the entire value chain – from raw cotton and yarns, to fabrics and end products. We were one of the first laboratories in the world to quantify the proportion of GMOs in a raw cotton sample, based on a positive GMO screening. Quantification makes it possible to differentiate between minor contamination and intentionally added genetic modifications. This test is also an essential component of the OEKO-TEX® ORGANIC COTTON certification, which was launched in 2023.

**Period underwear (HQL)**

Reusable period underwear can be more sustainable alternative or complement to conventional hygiene products. However, absorbency, leak prevention and comfort are impossible to tell by sight and even feel. In collaboration with textile producer Femtech/MAS, we developed a test method (FEMTECHMAS-HOHENSTEIN-6513-2022:01) that verifies the key requirements of reusable period underwear. Successfully tested products can earn a Hohenstein Quality Label to communicate quality to the consumers.

### FLORIAN GIRMOND

CEO | Consumer Tests



More-sustainable products only stand chance if their performance can be objectively assessed and compared. We develop new test methods that can prove just this. For period underwear, manufacturers also use the test results to optimise their products, select the right materials and adapt to the users' requirements. All of these measures increase acceptance.







### **DIN SPEC 4872: fibre release, biodegradation and ecotoxicity**

Studies show that laundering textiles releases microplastic fibres into the washing water. These microplastics cannot be retained by sewage treatment plants and, because they are not biodegradable, pose great risk to the environment.

Hohenstein developed a new method for analysing the release of microfibrils from textiles. It uses dynamic image analysis to

quantify release behaviour. The data, which could not previously be recorded, has a practical impact on material development throughout the supply chain. The new method enables informed decisions when developing more sustainable textiles with less shedding.

We collaborated with project partners to create the new DIN SPEC 4872 standard, which is now used as a standardised test procedure to detect and classify the environmental impacts of textiles during washing. It measures fibre release, biodegradation and ecotoxicity.

### **JULIANE ALBERTS**

**Material Performance Product Manager,  
Life Science & Care Division**



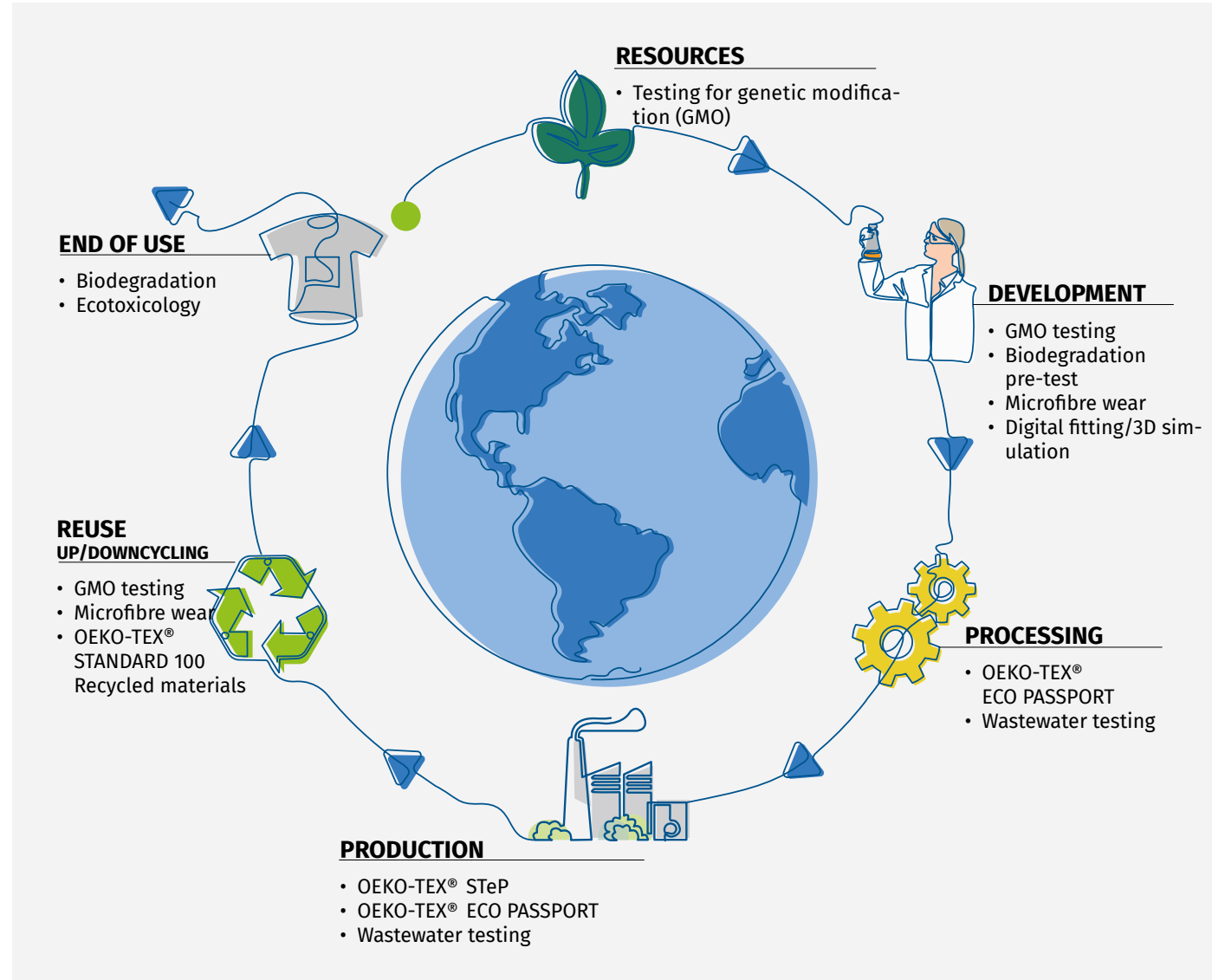
To minimise the negative environmental impacts of the textile and apparel industry, we first need awareness. Hohenstein analyses textile microfibre discharge and examines their biodegradability and potential risk to the environment. These tests can identify potential environmental influences early in the development process and determine if the products meet requirements for recyclability. <<



# SERVICES

Hohenstein is an independent, accredited laboratory offering comprehensive services for the entire supply chain. We do quality testing, certifications and inspections of all kinds of textiles and production facilities. From basic product testing and functionality assessments and practical for sustainability, our services are holistic and well-rounded. For example, Hohenstein founded the science of clothing physiology and is still instrumental in the development of standards and testing methods that make it possible to objectively determine the wearing comfort of clothing and the sleeping comfort of bedding.

We offer our customers services and testing throughout the entire product life cycle – from the cotton field to final disposal.





## RESOURCES

### Responsible textile service

We offer a certification system for laundries that provides neutral proof of operational sustainability. This involves a survey of their sustainability approaches, a training process and annual audits. This service helps laundries benchmark against the competition and set themselves apart. The certificate also serves as proof for tenders. Sustainable management has become a clear competitive advantage in the laundry industry too.



### BRITTA KOWITZ

Lab Technician, Laundry and Textile Care Laboratory



Our customers in textile service businesses wash tonnes of textiles for hospitals, hotels, industrial companies, retirement and nursing homes, food processing companies and kitchens. If washing is carried out in a quality-assured, hygienic and resource-conserving manner, companies earn the RAL quality certification mark for responsible textile service. Analyses show if a washing process strains the fibres more than necessary. Sustainability is increased with longer lasting textiles and fewer fibre resources used.



### DR TIMO HAMMER

CEO | Life Science & Care



The textile rental industry makes an important contribution to sustainability. Rented products can be used and reprocessed multiple times – even surgical gowns in the medical sector. This means that single-use products can be replaced by reusable products, provided all the laundry processes are correct. This is precisely what we ensure with our work in the German Certification Association for Responsible Textile Services (RAL).

In addition, there are many other steps in the product life cycle that must be considered for sustainability. You have to ask important questions. For example, starting with raw materials: are they GMO-free? Through disposal: At the end of the day does the textile degrade completely, yet leave harmful traces in nature? Through our services, we contribute to a better, safer and more sustainable product at every stage of the cycle.



## RESOURCES

### GMO testing (genetically modified cotton)

Manufacturers, brands, certifiers and consumer protection organisations benefit from clear yes/no statements about GMO-free cotton. Quantification offers supply chain transparency and fraud management.



## DEVELOPMENT



### Biodegradation and ecotoxicology

Analysing environmental impacts of textiles makes responsible disposal. We examine what happens when different fibre-based materials decompose in soil: how quickly or slowly they are broken down, what remains of them and whether ingredients are harmful to the environment (ecotoxicology).

## PROCESSING

### Wastewater testing

We offer expert wastewater testing according to various specifications, such as OEKO-TEX® ZDHC and the Greenpeace Detox campaign. We provide independent verification of a production facility's compliance with the standards. Cleaner production contributes to significant reduction of harm to health and the environment by textiles, leather and footwear.





## DEVELOPMENT



### Hohenstein Digital Fitting Lab

The Digital Fitting Lab offers added value beyond the perfect fit: Hohenstein provides targeted support for optimizing digital process steps such as 3D design and visualisation, pattern and prototype development, fit testing and tech pack creation. A consistent fit increases customer loyalty and reduces return rates. As 3D development reduces physical prototyping, it allows for efficient, flexible design editing.

### FLORA ZANGUE

Digital Fitting Lab expert, Clothing Technology division



Our Digital Fitting Lab helps companies integrate the latest 3D technologies for the apparel design into their processes. By using 3D tools correctly, brands can replace physical prototypes with virtual prototypes and operate more sustainably: fewer prototypes – fewer resources – lower carbon footprint.



### **Sustainability strategy development for customers**

We constantly strive to meet our customers' needs. We pooled our experience to offer support in effective sustainability development and management.

Our 'fit for sustainability' concept includes three steps towards sustainable development. We engage our customers at the beginning of the journey with fundamental topics such as developing a sustainability roadmap. We guide them with a pragmatic approach from supply chain management to specific research and high-profile impacts. In addition to consulting, we help with webinars and workshops for knowledge transfer.



## MARIE OLDOPP

Sustainability Development Manager



Often I find that companies have not yet implemented the basics of supply chain management, process development and material evaluation in a sustainable way.

Together with our customers, we develop this basic framework to help them deal with current and future laws and challenges. We are supported by the OEKO-TEX® system and the extensive knowledge within various Hohenstein divisions.







## Sustainability roadmap

Creating a realistic, actionable sustainability roadmap is often a challenge.

- Our roadmap considers current and future regulations such as Germany's Act on Corporate Due Diligence in Supply Chains (LkSG) and the Corporate Sustainability Reporting Directive (CSRD).
- Workshops help to get to know the company structure.
- A customized plan defines clear responsibilities.
- Training courses and clear guidelines build knowledge and contribute to successful implementation.



## Supply chain management

Supply chain management is the basis for sustainable development. Risks can only be analysed and minimised with deep supply chain transparency. Then, comprehensive sustainability criteria can be implemented.

- Establish and analyze the status quo.
- Precisely define the supply chain criteria.
- Qualify suppliers with scoring models.
- Derive measures for supplier improvement.



## Risk analysis

Risk analysis is based on the LkSG and the EU-wide Green Deal regulations.

- We analyze risks, focusing on social and environmental impacts in the supply chain and the own company. We select appropriate methods for development.
- We use data for evaluation, prioritisation and action planning.
- We research the background and starting point.



## Development and implementation of the German Act on Corporate Due Diligence in Supply Chains (LkSG)

We offer practical assistance in meeting key demands from policymakers, NGOs and consumers regarding transparent supply chains.

- OEKO-TEX® products (OEKO-TEX® MADE IN GREEN label and RESPONSIBLE BUSINESS) ensure transparency and responsible implementation of due diligence obligations.
- We support development of processes that help companies structure their risk analysis, create preventive and remedial measures and plan sustainable implementation.
- We support KPIs and testing effectiveness through close collaboration and structured processes.

## WORKSHOP REFERENCES

### Workshops

Our workshops help customers develop their sustainability strategies and break them down into manageable steps. They also train staff and suppliers on the topic and importance of sustainability. The workshops are available online and in person.



### JUTTA VAN BALLEGOOIJEN

#### HVEG Fashion Group



#### Online training

Hohenstein held two online training sessions on the topics of sustainability basics and more sustainable materials. The online workshops were held for all the international offices of the HVEG Group and achieved a high level of participation. The structure of the online training was well developed and easy to follow, and the training featured very practical recommendations and tips. During the group work, Hohenstein succeeded in involving all the participants with activating games and methods. These workshops are part of the HVEG Sustainable Education programme, an internal educational programme that teaches all employees of the HVEG Fashion Group about sustainability. <<



### LENA JURCZEWSKI

#### Fashion Connections



#### January 2023 sustainability workshops

Sustainability topics are growing and becoming increasingly relevant. Fashion Connections has set itself the goal of bringing the entire company up to a common level of knowledge so that all the colleagues are able to independently make sustainability decisions regarding materials and production facilities. Hohenstein organised workshops for the entire team. On the first day of the workshop, the basics of sustainable business were taught. The second day of the workshop focused on the basics of materials and group work in which the company's own products were designed to be more sustainable. We would like to thank Hohenstein for the interesting, well-structured workshops. The content was explained in a simple and practical way – with lots of expertise and background knowledge from the textile industry. The workshop formats were well attended by the team and had a lasting influence on our decision-making processes. <<





**HOHENSTEIN**  
ACADEMY

### HOHENSTEIN ACADEMY

Since it was founded, Hohenstein has been a place of learning, knowledge and knowledge transfer – and this remains true today. Always at the cutting edge of the textile world, we share our wealth of knowledge in a wide range of courses: face to face and online seminars and customer and supplier trainings on-site. At any time, from anywhere, anyone can access Hohenstein Academy digital content. Our experts present bite sized education from across our research.



## PRODUCTS



### Hohenstein Quality Label

Hohenstein Quality Labels highlights the innovative features of tested products for consumers. We awarded the first Quality Label in 2003 for the garment comfort. Now, over 20 Quality Labels provide evidence if different product features, e.g. biodegradability, fit, compression, UV protection and antimicrobial efficacy.



### Green Button

Since January 2021, Hohenstein has been accredited by Germany's Federal Ministry for Economic Cooperation and Development (BMZ) to certify products and companies for the Green Button label. The Green Button stands for binding requirements to protect people and the environment in textile and clothing production. What makes the Green Button so special is that the company as a whole is audited in addition to the product.



## OEKO-TEX®

Hohenstein is a founding member of the OEKO-TEX® Association. Since its introduction in 1992, the OEKO-TEX® system has led the industry with independent sustainability certifications and services along the textile chain. We perform laboratory tests and company audits for all OEKO-TEX® services.

Hohenstein has issued more certificates worldwide than any other OEKO-TEX® member. In addition to certifications and licences, the myOEKO-TEX® portal offers an overview of existing certificates. The OEKO-TEX® BUYING GUIDE enables sourcing of certified products and companies.

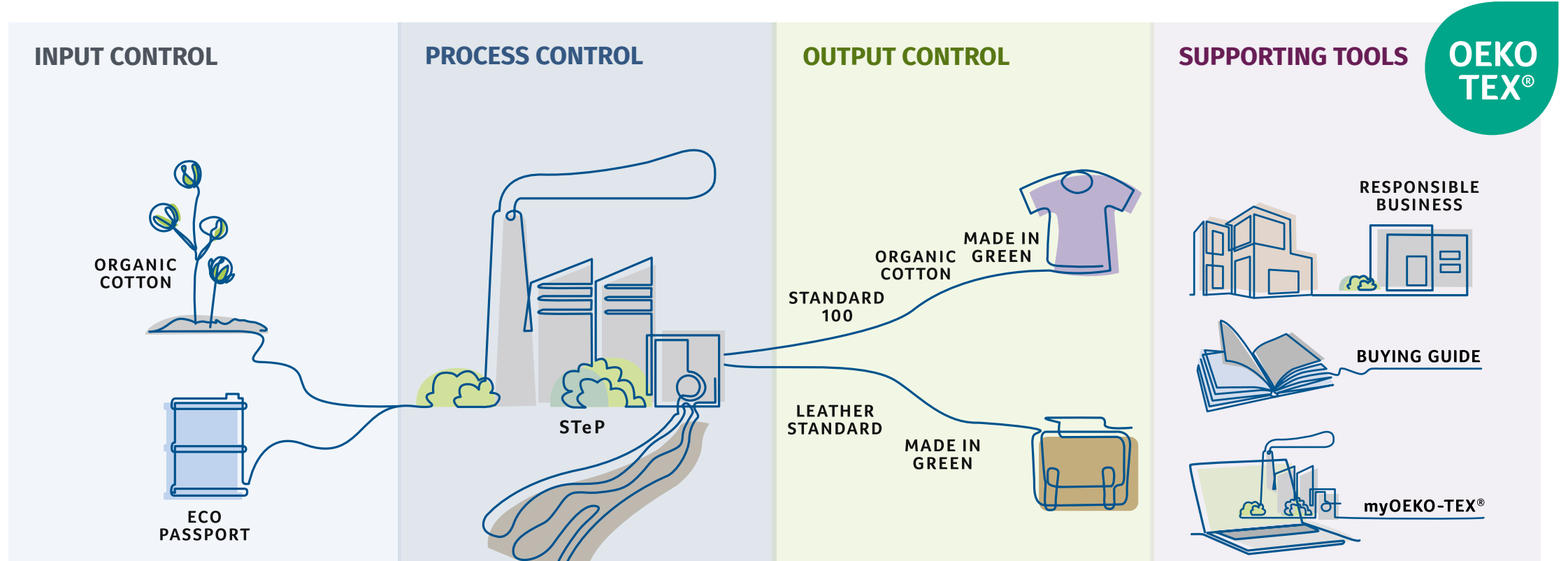
## MICHAEL MÖLLER

Division Manager, Audits and Certification



Demands, like regulatory developments and comprehensive data requests, are intensifying. Our customers use the OEKO-TEX® Impact Calculator to determine their carbon and water footprints and find answers to these questions. In addition, the Impact Calculator can be used to find and target areas for improvement. With tools like this, we help our customers understand their impacts and take action to conserve resources. Our contribution to climate protection and resource efficiency is multiplied.





- ECO PASSPORT**  
Certification system for chemicals, colourants and auxiliaries
- STeP**  
Environmentally friendly and socially responsible production with detox testing
- STANDARD 100**  
Textiles tested for harmful substances, including specifically for recycled materials, if required
- LEATHER STANDARD**  
Leather goods tested for harmful substances
- ORGANIC COTTON**  
Organic cotton traced and tested for harmful substances
- MADE IN GREEN**  
Traceable product label for textile and leather products
- RESPONSIBLE BUSINESS**  
Management tool to meet supply chain due diligence obligations



## IMPACT CALCULATOR

Part of the OEKO-TEX® STeP certification is the Impact Calculator which determines water and carbon footprints. It enables production facilities to analyse the processes that contribute most to their environmental impact.

## OEKO-TEX® ORGANIC COTTON

Our globally standardised certification system makes traceability back to cultivation possible, identifies genetically modified cotton, provides transparency on numerous pesticides and checks for harmful substances.

## OEKO-TEX® MADE IN GREEN

This is a traceable product label for textile and leather products that have been manufactured in environmentally friendly facilities in socially responsible work places. The MADE IN GREEN label also reassures consumers that the product has been tested for harmful substances.





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# SUSTAINABILITY STRATEGY

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Sustainability vision

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SDGs – Sustainable Development Goals

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Sustainability roadmap

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HOHENSTEIN

# SUSTAINABILITY STRATEGY

**Sustainability is in our corporate DNA. We have been implementing sustainability measures for decades. To transparently share this with the world, we as a company have taken a number of additional actions.**

In 2019, we participated in the **ECOfit PROGRAMME** to have our sustainability measures reviewed and assessed by a neutral party. ECOfit is a funding programme of the Baden-Württemberg Ministry of the Environment, Climate Protection and the Energy Sector. It works on environmental protection with companies, associations, municipalities, schools, universities, parishes, church institutions and other organisations. The programme aims to lower costs by reducing the consumption of energy, water and operating materials and by reducing waste. To contribute to reducing the burden on the environment, organisation can improve their environmental performance and, for example, share their experiences with other organisations.

In 2022, we **HIRED A SUSTAINABILITY MANAGER** to take our sustainability focus further - both internally and externally. As a Sustainability Development Manager at Hohenstein, Marie Oldopp is responsible for developing and monitoring internal development of measures, as well as providing external advice to our customers.

**STRATEGIC DEVELOPMENT PLANNING** will replace Hohenstein's previous environmental guidelines in 2023. We explain the changes in this section.







**ONE EARTH  
ONE FAMILY  
ONE FUTURE**

## SUSTAINABILITY VISION

### Sustainability to the point.

Hohenstein thinks and acts in terms of generations. We firmly believe that the responsible handling of our planet and its resources is the prerequisite for a liveable future. Using our expertise, we set standards and support customers in their development. Environmental, social and economic sustainability is the success factor of the future.

### Our objectives:



**ENVIRONMENT**  
Conserving resources



**SOCIAL**  
Fair employment and cooperation



**CORPORATE GOVERNANCE**  
Transparent management



## SUSTAINABILITY TO THE POINT

### TARGETS

#### IMPLEMENTED IN 2023:

- ▶ Data analysis
- ▶ Employee involvement through surveys
- ▶ Transportation data collection (focus on rail travel and flights)
- ▶ Sustainability roadmap development

### MARIE OLDOPP

#### Sustainability Development Manager



At our headquarter, there is a lot of potential for resource conservation and environmentally conscious work – and this is already actively embraced. Our goal is to maintain this high level and further optimise wherever possible. Our team is working closely with the Management Board and there is great commitment and motivation on both sides. That gives me confidence that we will have a lot of achievements to be proud of in the coming years.



# SUSTAINABLE DEVELOPMENT GOALS

The 2030 Agenda and its 17 Sustainable Development Goals (SDGs) is a global plan to protect our planet and promote sustainable peace and prosperity. Hohenstein has committed to the SDGs with aligned services and internal measures.



## ENVIRONMENT



### Clean water and sanitation

OEKO-TEX® STeP, microfibre analysis, wastewater testing.



### Responsible consumption and production

Services that identify, target and promote lower impacts.



### Climate action

Internal measures to reduce our impact. Services for the industry, such as the OEKO-TEX® IMPACT CALCULATOR.



## SOCIAL



### Good health and well-being

Audits and certification of responsible workplaces. Safety for our employees.



### Gender equality

Commitment to equality and advancement for our employees and our industry, including non discriminatory language and gender equality.



### Reduced inequalities

Certifications like OEKO-TEX® STeP and OEKO-TEX® RESPONSIBLE BUSINESS.



## CORPORATE GOVERNANCE



### Decent work and economic growth

Transparent corporate governance measures and OEKO-TEX® facility and supply chain tools.



### Partnerships for the goals

OEKO-TEX® Association, **Memberships:** ASBCI, PCIAW, UV Association, ZDHC, UOG, etc.



# SUSTAINABILITY ROADMAP



## Integration of management levels

To ingrain sustainability topics at the highest levels, the Management Board held recurring meetings about the sustainability strategy.

Sustainability teams have been formed in the following areas:

### MANAGEMENT/ASSESSMENT:

Owner, Family Advisory Board, Management Board

### ENVIRONMENT:

Sustainability Department, Facility Management and Management Board

### SOCIAL:

Management Board and Sustainability Department

### GOVERNANCE:

Management Board

## Conducting surveys among employees

Every two years, the HR department conducts an employee survey. It is anonymous and online. Only the division is indicated so that the responses can be evaluated in a differentiated manner.

The results of the survey are presented in a colloquium and then discussed by division managers. The survey assesses, for example, general satisfaction, the conduct of the Management Board, the employee's own supervisor, communication and many other topics. In addition, the employee can express wishes and suggestions or explain topics in more detail.

## Surveying sustainability

As part of a site - wide survey in Bönningheim, all the employees had the opportunity to anonymously suggest how Hohenstein could become even more sustainable. Due to anonymity, there was also room for criticism of the processes.

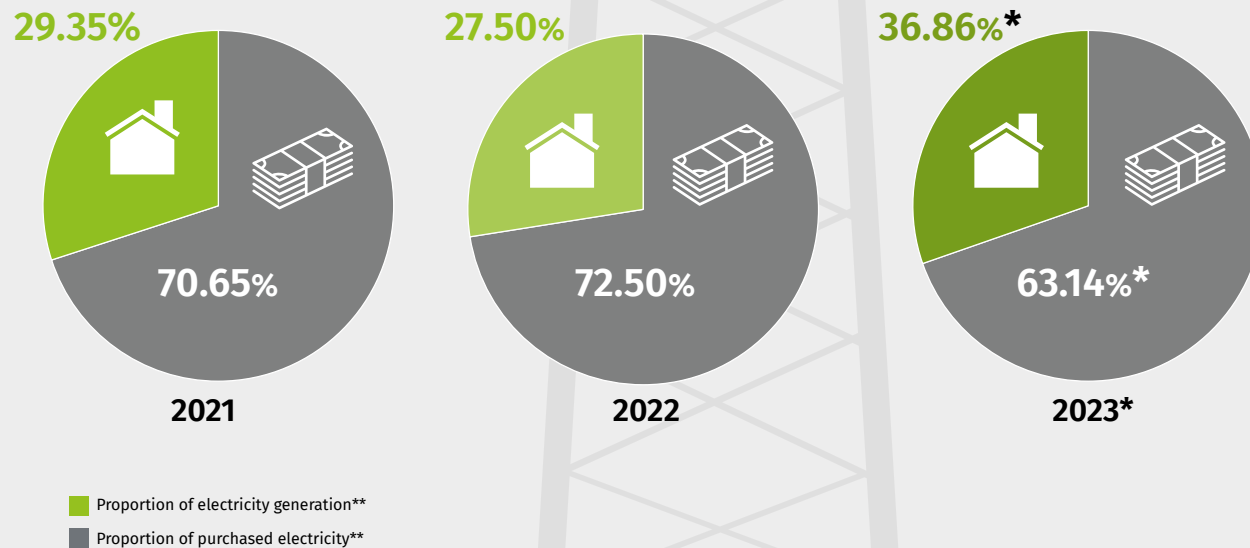
Based on the survey, many improvements and measures have been implemented. In addition, the team's ideas were directly incorporated into the 2024 sustainability roadmap.



## SUSTAINABILITY ROADMAP ENVIRONMENT

We have been working toward energy and resource efficiency for years. Many measures have already been successfully implemented. Our approach and 2023 milestones are summarized here.

### Proportion of renewable energies, 2021–2023



\* Measured values up to 31 October 2023, data interpolated. \*\* Proportion of total electricity consumption per annum.

### In-house power generation

The third cogeneration plant has been in operation since August 2023. As a result, in-house power generation increased by around 26% compared to 2022. Overall, electricity generated in 2023 accounts for around 36.86% of total electricity consumption.

### Purchased electricity

100% of the electricity purchased in 2023 was generated from hydropower. Overall, the purchase of additional electricity in 2023 was reduced by around 17.72% compared to 2022.

### Energy consumption

Electricity and heating oil requirements are broken down by energy source and consumer. In the event of major deviations, measures are taken on a monthly basis.

### Energy audit

In addition, an energy audit is carried out every three years in accordance with DIN EN 16147-1. Appropriate measures were derived from the audit results.



## MOBILITY

Mobility data for company vehicles, flights and journeys by public transport is recorded. We will perform a detailed evaluation of the greenhouse gas emissions generated by all our transportation in Germany.

- **To 30 September 2023, around 660.82 kg of CO<sub>2</sub> were emitted due to rail journeys in Germany.<sup>1</sup>**
- **Around 136,017 kg of CO<sub>2</sub> were emitted by employees in Germany as a result of air travel.<sup>2</sup>**

In order to reduce our environmental impact, our travel policy is to avoid short-haul flights wherever possible. This promotes greener travel practices and raises awareness of low-emission alternatives.

Options include electric mobility, bicycles and public transport. For example, there are eighteen charging points at the company site, twelve of which can be used for private cars and six for company vehicles. This offering will be particularly sustainable in the future thanks to the newly installed photovoltaic system. Our employees also have the option of leasing bicycles through the JobRad programme or taking advantage of the JobTicket season ticket for longer commutes.

<sup>1</sup> Calculation: CO2Compass of DB Fernverkehr AG (accessed November 2023). <https://co2kompass.bahn.de/>

<sup>2</sup> Calculation: CO<sub>2</sub> calculator of atmosfair gGmbH (accessed November 2023). [www.atmosfair.de/en/offset/](http://www.atmosfair.de/en/offset/).

## WATER CONSUMPTION



- Process-related water consumption in the laboratory cannot be reduced due to specifications.
- Watering measures for the site are being reduced.
- Use of rainwater to water the gardens.
- The non-infiltrating portion of the surface water is channelled via infiltration trenches; 70 % of the water infiltrates on the property's own land.
- Water-saving toilets have already been implemented throughout the site.

## COOLING



In colder months, our ventilator system uses low outdoor temperatures for passive night cooling. As a result some refrigeration units can be removed and heat exchangers used to generate the cold required for testing processes. Absorption chillers generate cooling from waste heat. Intelligent networking of refrigeration systems helps ensure that only the most effective form of refrigeration is used.

## RESOURCES



- Regular review of substances that could be replaced with environmentally friendly alternatives.
- Use of recycled packaging material, biodegradable cleaning agents, energy-saving devices.





### LIGHTING



Our employees are aware that we use insect-friendly, energy-saving light bulbs and time-controlled LEDs. This applies both to the offices, car parks and castle grounds.

### LOCAL PLANTS



We pay close attention to nature and their adaptation to the climate changes. We also use the most resource-conserving care possible.

### SPECIFIC CHALLENGES for a resource-conserving laboratory



We are constantly working to reduce our environmental impact and improve our sustainability measures. As a testing laboratory, we are limited by maintaining required laboratory conditions that guarantee our standards. For example, we need a standardised environment with standard temperature and humidity. Therefore, we can not completely reduce the resources in this area.



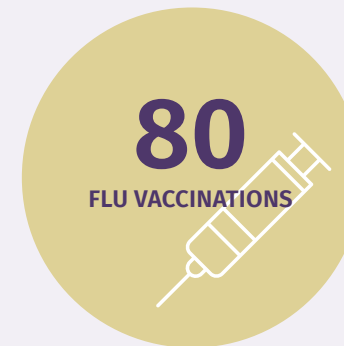
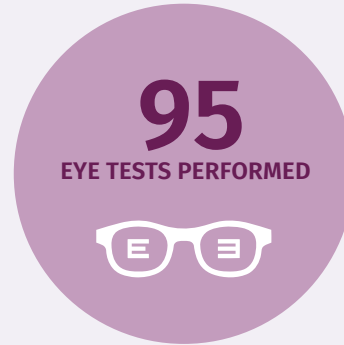
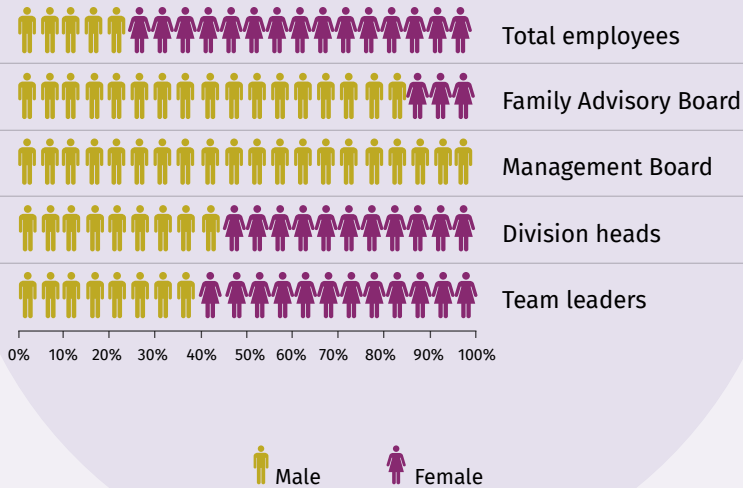


# SUSTAINABILITY ROADMAP SOCIAL

HR management focuses on the employees which is the center of our social sustainability. Through support, development and continuous improvement, we are always working towards our goal of being a fair and collaborative employer. When filling management positions, the common goal is to promote female managers.



## PROPORTION OF EMPLOYEES



**PROMOTING PROFESSIONAL DEVELOPMENT**

To keep managers up to date, a series of training courses has been established:

- Making good decisions
- Resolving challenging management situations
- Cross-cultural training
- What makes for good leadership?
- Labour law guidelines



## DR MARKUS H. OSTROP

**General Counsel/Chief Human Resources Officer/  
Compliance Officer**



At Hohenstein, we offer numerous individual and flexible working options. Both employees and the company benefit from balancing family, leisure and work. In addition, we offer job security in rapidly changing times, forego fixed-term contracts and train the colleagues we take on. Our workforce turnover is hardly significant as a result of this family business culture. We see what has been achieved as an incentive to continue our efforts toward social sustainability.







Many employees take advantage of the opportunity to work part-time to achieve a better work-life balance. Flexible working hours, flexitime accounts and working from home also ensure a good work-life balance. Even managers can use these opportunities.



*Monthly yoga course run by Daniela Kurfiss*



*City Cycling 2023*



*Sushi course*



*AOK Company Run*



## ARMIN KEICHER

CFO | Finance and Administration



Integration, expertise and appreciation are at the heart of our shared corporate governance vision. It is our responsibility to communicate this to all Hohenstein employees around the world. We support autonomy and entrepreneurial thinking and action. Through continuous professional development, we promote sustainability in our everyday work and communicate the importance of each employee's contribution to our environmental and social goals. This inclusive approach is critical to Hohenstein's long-term success.





A key aspect of our corporate governance is the shared vision. It forms the basis for voting at our regular meetings of the managing directors.

In these meetings, the company's strategic direction is collectively defined, taking into account every voice ensure holistic and forward-looking planning. This inclusive approach of diverse expertise from HR and Finance to Operations ensures that all decisions are made on a sound technical basis and in line with our shared values and goals.

We are especially appreciative of our employees' high levels of expertise and consistently involve managers in decision-making.

We strive to support each and every employee in their professional development. Our staff development is based on respect for the individual competence and their contribution. The pillars of a good and motivating work environment are autonomy, importance and expertise.

## AUTONOMY:

The promotion of autonomy in our company supports a sustainable work environment in which employees are given the freedom to independently organise their tasks and projects, while taking existing processes into account.

## IMPORTANCE:

We strive to make all employees aware of the greater meaning and purpose of their work in the context of sustainability. By showing how each contribution helps to achieve our environmental and social goals, we strengthen our employees' commitment to these important issues. To this end, communicating how our services help is fundamental.

## EXPERTISE:

Our ambition to achieve mastery in all areas of our company is reflected in our continuous improvement and professionalisation. We invest in the training and development of our employees to ensure they excel, not only in their areas of expertise, but also in terms of sustainability. This fosters a culture of learning and continuous growth, which is essential to achieving our sustainability goals.





## SUSTAINABILITY ROADMAP

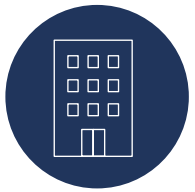
# CORPORATE GOVERNANCE

**Communication is key in corporate governance. We develop transparent and open communication based on the following points:**

- ▶ We will continue to involve our team through regular team meetings, departmental meetings, quarterly updates and colloquia.
- ▶ These meetings are designed to provide information on current developments and to foster open dialogue and exchange that leverages the collective expertise of our teams.
- ▶ The annual appraisals serve as exchanges as well as chances to recognize and promote the individual abilities and expert knowledge of our employees.
- ▶ The carefully designed onboarding process for new employees includes a welcome event, a mentoring programme and individual induction into the respective team. It demonstrates our commitment to successfully integrating new talent into our company.

- ▶ Exit interviews are held when employees leave the company to identify possible causes. These talks are systematically evaluated to derive constructive measures.
- ▶ Employee loyalty at Hohenstein is exceptionally high. This can be seen in the employee turnover rate, which averaged 5.89% for the year in 2023 (unwanted employee turnover).
- ▶ With the Hohenstein Compliance Line, we offer an anonymous grievance mechanism that strengthens the trust and safety of our employees and creates an environment in which ethical conduct and mutual respect are promoted.
- ▶ Our surveys are another step towards ensuring every employee is involved in key decision-making processes. These initiatives underscore our commitment to adaptive, respectful and responsible corporate governance.





## SUSTAINABILITY ROADMAP CORPORATE GOVERNANCE

### ELEVEN COLLOQUIA

In the **45-minute colloquia**, employees can learn about internal topics. Eleven colloquia were held in 2023 on topics such as Hohenstein Medical, a health workshop with exercises and sustainability.



### EVERY TWO YEARS

The most recent survey from 2022 showed that 90% of our employees are satisfied or very satisfied with Hohenstein as an employer and the general working atmosphere.



### FIVE CONSULTATION HOURS

**HR consultation hours** take place online on a regular basis. In 2023, five consultation hours were offered on topics such as corporate benefits, support with the job ticket system, health issues, internal personnel structures and retirement provision.



# 4 OUTLOOK



HOHENSTEIN





As a company whose services are committed to sustainability and social responsibility, we bear a special responsibility. We are motivated to constantly intensify our own sustainability efforts. We want to rise to this challenge year after year. In 2024, we are setting clear, quantifiable goals to further improve our environmental footprint, strengthen social responsibility and increase the efficiency of our corporate governance.



## ENVIRONMENT

### Expansion of carbon accounting:

We want to deepen our carbon accounting to gain more accurate insights into our environmental impacts. This is the basis for planning and implementing targeted measures to reduce our environmental footprint.

### Intensification of resource efficiency:

We are especially focused on implementing measures to further reduce our consumption of resources. These include process optimisation and increased use of resource-efficient materials.



## SOCIAL

### Strengthening knowledge transfer:

In the coming year, we will continue to invest in internal training and in knowledge sharing. In this way, we will ensure that expertise is shared and used in the best possible way within the company.

### Intensification of employee development:

We aim to further target support for employees' professional and personal development. This includes increased training and targeted career development programmes.



## CORPORATE GOVERNANCE

### **Intensification of dialogue:**

Dialogue between the Management Board and employees will be further strengthened. This will enable an even more open communication culture and promote understanding of our common goals.

### **In-depth dialogue with stakeholders:**

We want to intensify the dialogue with our stakeholders to continuously improve responses to their needs and expectations. Stakeholders include customers, suppliers and the local community.

**We would like to say a big thank you to our employees who help us improve every day. With their ideas and commitment, they are the basis for sustainable action and continuous improvement.**

## DR STEFAN DROSTE

Director, Hohenstein Textile Testing Institute



As the Management Board, we are committed to further developing our sustainability. Our commitment in this area is not only a responsibility for future generations, but also a solid foundation and prerequisite for our own global activities. In the coming years, we will continue to expand and refine our sustainability strategy to ensure that our practices meet internal requirements and external standards and expectations.

External validation serves not only as a benchmark for our progress, but also as a tool to strengthen transparency and trust among our stakeholders. We plan to intensify our collaboration with independent auditors and certification bodies to ensure an objective evaluation of our sustainability performance and see it as an opportunity to learn.

It goes without saying that sustainability is a dynamic challenge which requires continuous adaptation and innovation. With this in mind, we will strive to research and implement new technologies and approaches that help us to act in a more environmentally friendly and socially responsible manner.

The vision for the future is one where sustainability is seamlessly integrated into all aspects of our business – from procurement and services to sales. We are committed to making this vision a reality and look forward to taking this journey with you and making a positive impact together.







HOHENSTEIN

## SUSTAINABILITY TO THE POINT.

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