



**Tepar Textile  
Sustainability Analysis  
“Orbit Criteria  
Assessment”**



ORBIT CONSULTING

13.01.2023

# AGENDA



SUSTAINABILITY MANAGEMENT

ORBIT CRITERIA ASSESSMENT

METHODOLOGY

GENERAL ASSESSMENT

TEPAR TEXTILE MATURITY LEVEL

RESULTS

GENERAL RECOMMENDATIONS

SHORT-MEDIUM TERM RECOMMENDATIONS



### **General Sustainability Management**

- Social compatibility oriented
- Separate assessment of compliance issues
- Separate assessment of environmental compliance
- Adoption of sustainability measures in line with customer requirements

### **Modern Sustainability Approach**

- Proactive / Innovative sustainability activities,
- An integrated and planned sustainability
- Establishing a sustainability culture, sustainability trainings, placing sustainability criteria in company goals
- Process management and KPI tracking; reporting
- Effective participation of sustainability management in strategic planning and projects
- Responsibility for the monitoring and management of the activities of the sustainability manager

# S U S T A I N A B I L I T Y M A N A G E M E N T



## Report Content

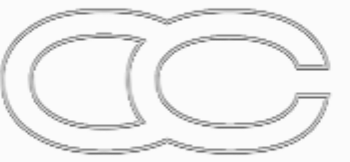
The purpose of the Sustainability Analysis study is to determine the status of the sustainability activities carried out within the TEPAR TEXTILE enterprise according to the “ORBIT Criteria” standards and best practices, as well as to determine the actions to be taken towards the targeted maturity level.

## Orbit Criteria Methodology

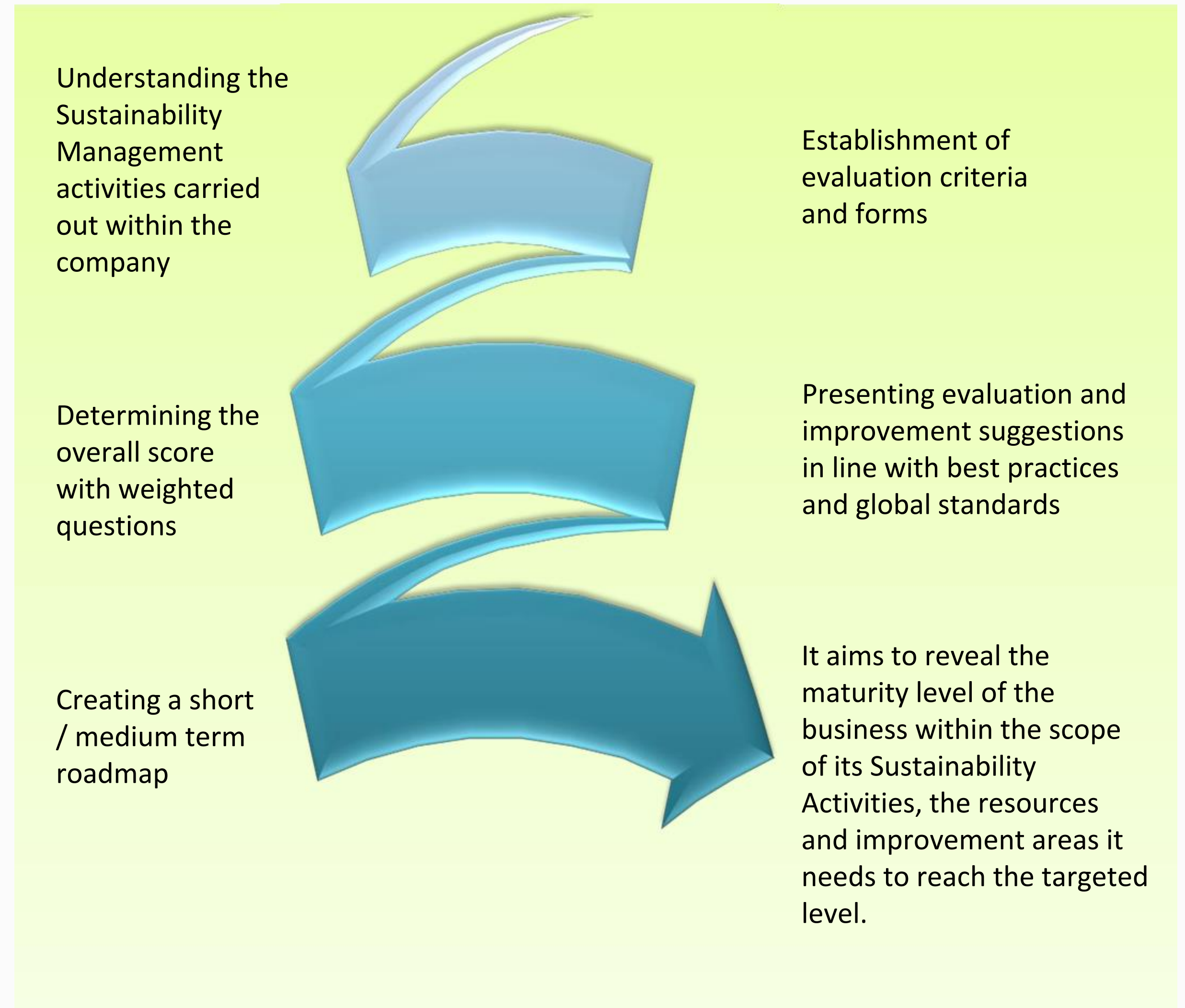
Report; Evaluation documents created by ORBIT;

- Evaluation of TEPAR TEXTILE with the Sustainability Management team and project managers
  - Answering the Orbit Criteria Assessment
  - It was created by presenting improvement suggestions in the light of best practices and global standards.
- Evaluation criteria were created and weighted by ORBIT Consulting, and scores were made for each evaluation criterion for TEPAR TEXTILE.
- The criteria established within the scope of TEPAR TEXTILE Sustainability Management and Sustainability Analysis Study; The Higg Index modules are based on local and international standards and regulations such as SEDEX, the United Nations Sustainable Development Goals and more.

# ORBIT CRITERIA ASSESSMENT



## METHODOLOGY





## STEP 1: ASSESSMENT OF CURRENT STATUS WITH ORBIT CRITERIA

M E T H O D O L O G Y

## # Orbit Criteria

- "Orbit Criteria" is the starting point of Orbit Consulting's services.
- This tool, developed considering the current sustainability aspects of the textile industry, as well as international and local working methods and requirements, is a scoring system determined by answering 200 questions.
- The purpose of the Orbit Criteria Assessment is to provide a starting point by making a sustainability assessment for the client and creating a score for the current sustainability issues in the textile industry.

M E T H O D O L O G Y

## # Orbit Criteria

- 200 questions are asked to the customer. These questions are answered with one of the answers «**Yes, No or Not suitable for me**». If it is not suitable for the business, the answer is "not suitable for me". The questions are interrelated and complement each other.
- After the starting point is established, the sustainability needs of the company and facility are determined and action plans are created.
- The result is evaluated within the framework of the main needs and a sustainability criteria score is systematically determined, with this score the customer level is determined and the evaluation is completed.





### **If the basic findings and the current situation of TEPAR TEXTILE are assessed in general;**

- It was noted that sustainability management activities are capable of development in terms of implementation. Even if a sustainability strategy and goals are established in the company and a responsible employee is appointed, the company's membership in socially and environmentally recognised sustainability certificates, systems and platforms will make the processes much more systematic.
- It was noted that the company, which is at a very advanced level in terms of social compliance, uses methods and procedures that are in line with international standards.
- It was found that the level of maturity in all parameters can be increased in accordance with the written and communicative presentation of the existing applications in the company, which is at a good operational level in the subtitles of Green Factory, and in accordance with the scientifically based measurements to be planned.
- Although the company has a strategy for the management of the supply chain, the development and traceability in relation to the criteria of sustainable production were considered to have room for improvement.
- It was noted that the company is at a good level in the sustainable use of raw materials in relation to its product range.
- It was noted that sustainability activities in the company are supported by internal digitalization processes.

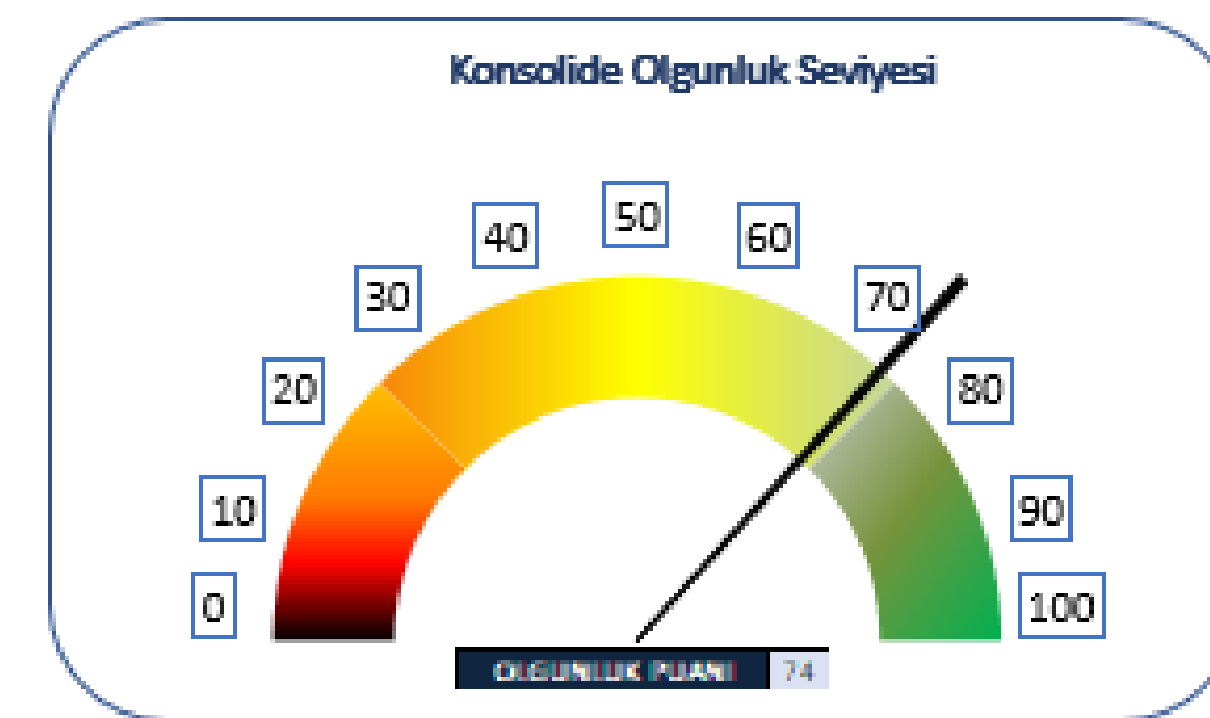
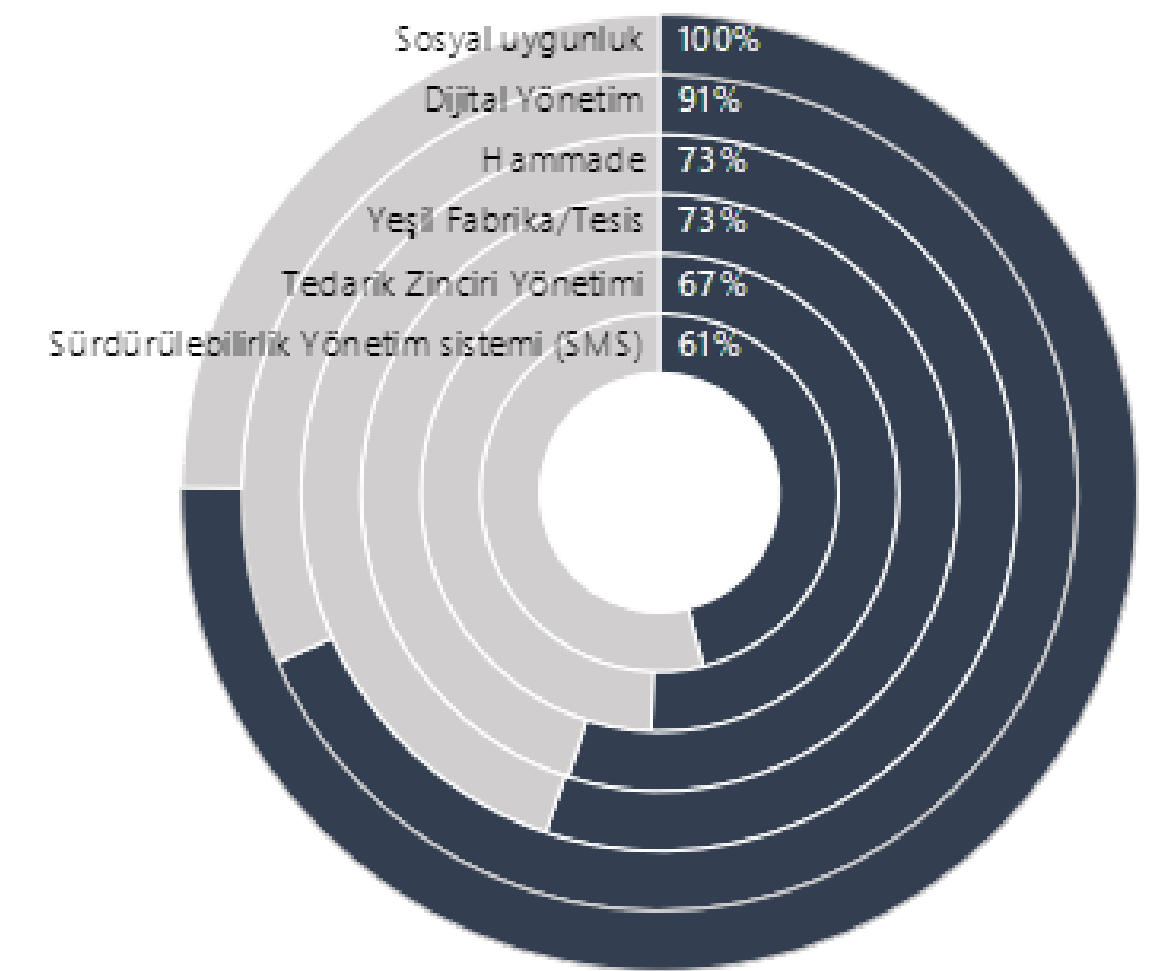
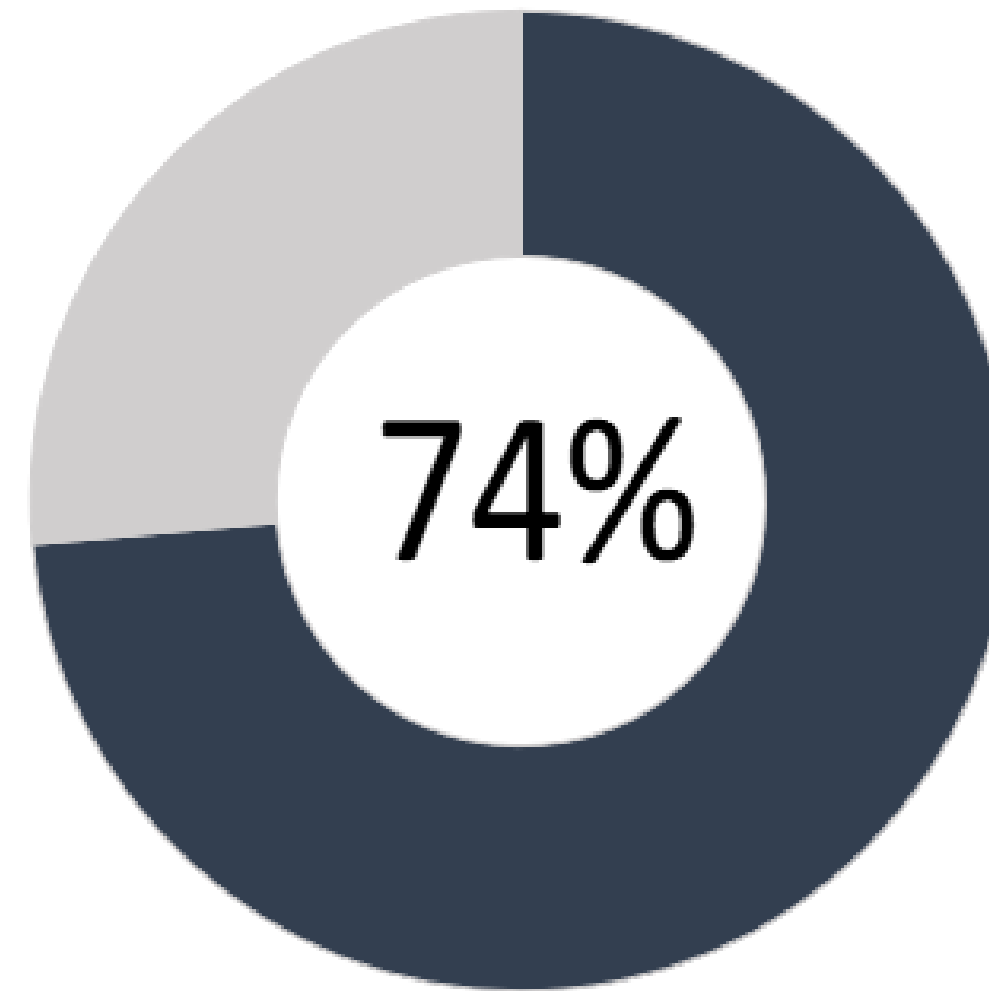
## Orbit Criteria Değerlendirme Aracı

Veriler  
(Reporting)

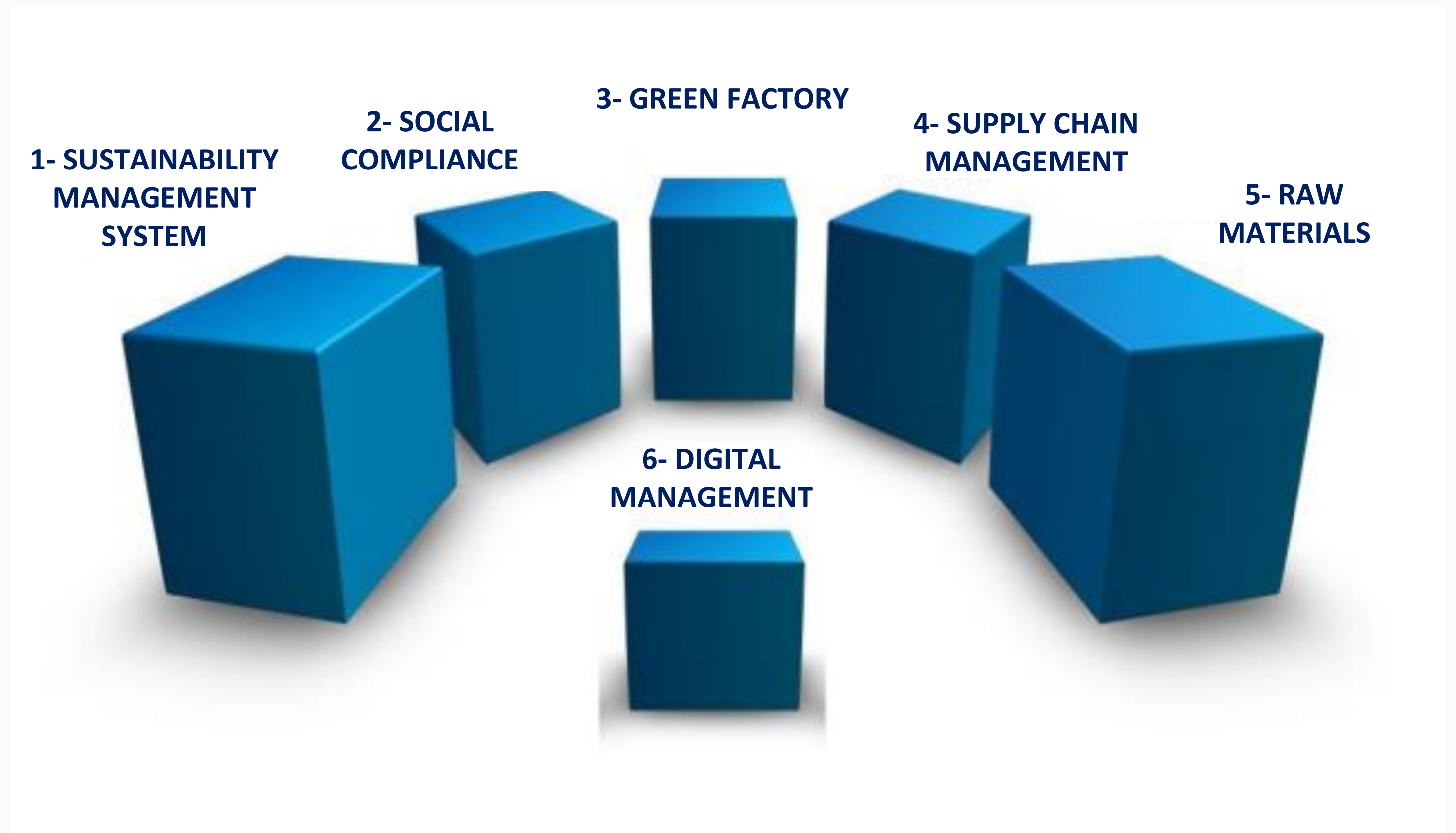
Açıklamalar  
(Road Map)

Konsolide Kurum Sürdürülebilirlik Olgunluk Yüzdesi  
Consolidated Corporate Sustainability Maturity Percentage

Orbit Criteria Sürdürülebilirlik Her Başlıkta Olgunluk Seviyesi  
Orbit Criteria Sustainability - Title's Maturity Levels



TEPAR TEXTILE  
MATURITY LEVEL

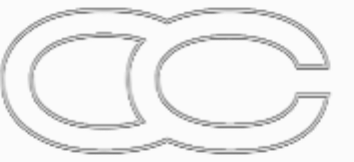


The following sections contain detailed assessments for each title.

# RESULTS



## RESULTS – 1) SUSTAINABILITY MANAGEMENT SYSTEM (61%)



According to TEPAR TEXTILE sustainability criteria, the maturity level in the sustainability management systems section is given as 61%.

- In the evaluation according to industry standards and certifications, the company has the system documents ISO 9001 and ISO 14001, the product safety certificate OEKO-TEX Standard 100 and the raw material certificate GRS.
- The company, which does not have a system membership related to social compliance, participates in audits conducted by Inditex.
- Although the company is not a member of the ZDHC platform, it complies with the EU Reach Regulation.
- Sustainability is considered a fundamental value within the company and strategies related to sustainability are established within the company.
- There are practices that promote sustainability area within the company. In the area of energy management, there are SPP projects and water reduction projects related to water consumption. There are reward systems for kaizen projects and sustainable studies.
- The company informs its customers about sustainability practices.
- The company is informed about the Sustainable Development Goals (SDGs), corporate objectives are set with these goals in mind, and it engages in sustainability-oriented communication with its internal and external stakeholders.



## RESULTS - 1) SUSTAINABILITY MANAGEMENT SYSTEM (61%)



- Although the company's employees were made aware of sustainability as part of training on the environment and OHS, they did not receive comprehensive sustainability training.
- Although the company has not yet published a sustainability report, a document outlining goals within the organization has been issued. The intention is to prepare a sustainability report according to GRI standards for 2023 and to publish it in various channels.
- Within the company, there are sustainability-related corporate goals, including environmental and social areas, and there is a responsible person working for the sustainability goals.
- There is a social compliance specialist within the company, and there is collaboration with an environmental consultant.
- The company has all the necessary land licenses. The company, which has EIA "out of scope" letters and an environmental exemption, has environmental risk assessment procedures.
- The company receives positive feedback from customers verifying compliance with social standards and no major violations have been identified.



## RESULTS - 2) SOCIAL COMPLIANCE (100%)



According to TEPAR TEXTILE sustainability criteria, the maturity level in the social section is calculated as 100%.

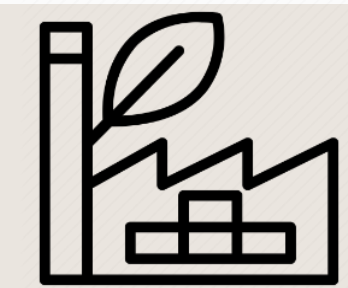
- The company has a business opening/work permit and a certificate of activity within the scope of the law.
- An emergency evacuation plan has been prepared and is implemented in accordance with procedures.
- Regular records of occupational accidents are kept, even if there are no occupational accidents, they are regularly recorded by the specialist OHS. Basic training OHS is conducted for the company's employees at certain periods.
- Compliance reports are prepared for the equipment and vehicles used, and regular inspections are carried out.
- Personal protective equipment is provided to the employees, and at the same time protective measures are taken on the machines.
- There is a properly executed first aid plan and certified first aiders designated according to the number of employees.
- There are reports of service water analysis, hygiene certificates/porter inspections of staff serving food and tea.
- Procedures are in place during recruitment to cover compliance with social standards, e.g. prevention of discrimination, harassment and abuse, prevention of forced labor, disciplinary procedures and child labor procedures.
- Job descriptions have been established according to expectations for compliance with social standards. HR Applications such as employee list, personnel files, annual leave monitoring are available in the company.



## RESULTS - 2) SOCIAL COMPLIANCE (100%)



- Wage payments are made at a specific time, and work hours are monitored with a face reading system.
- There is a contracted doctor for the company who comes by once a week.
- There is a contracted OHS specialist who comes by once a week.
- There are appointed management representatives and elected and appointed employee representatives.
- There are procedures for inquiries and complaints.
- Training on social compliance in the areas of fair pay, working hours, ethics, forced labor, child labor, discrimination, harassment, and abuse has been provided to managers and workers within the facility, and brochures on the training content have been distributed.



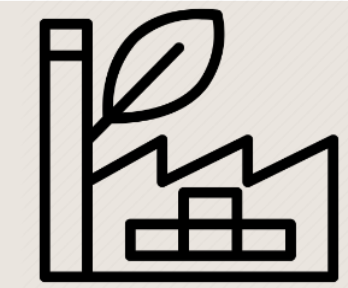
## RESULTS - 3) GREEN FACTORY (73%)



According to TEPAR TEXTILE sustainability criteria, the maturity level was calculated at 73% for the title "Green Factory".

- In the company there is no wet process. The enterprise supplying water for domestic use defines the water resources.
- The amount of water used in the enterprise is monitored, and the total annual amount of water consumption is known. Even though there is no wet process in the company, it is known that most of the water is used for garden irrigation.
- However, the company does not have a water management policy.
- The company, which is located outside the organized industrial zone, is not aware of the water risk in the region.
- In the company, there are heat recovery systems that use compressors. Measurements of indoor air and dust components are carried out in the plant, which is free of exhaust emissions.
- The plant uses energy from several sources. The types of energy used are electricity, solar energy, gasoline and diesel.
- The company does not have a written energy management policy, but the energy sources used are measured and recorded.
- No energy audit has been conducted in the building and there is no energy performance certificate document.
- The company knows the process in which most of the energy used in the company is estimated. Electricity consumption per kg is considered, and a production management system is set up to correctly manage energy consumption quantities and increase efficiency. In this way, the company will be able to measure how much energy is consumed for which product.

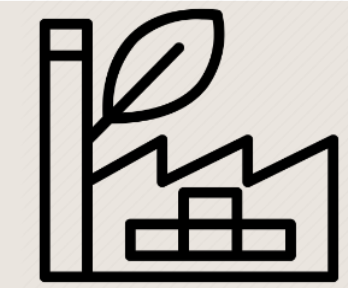




## RESULTS - 3) GREEN FACTORY (73%)



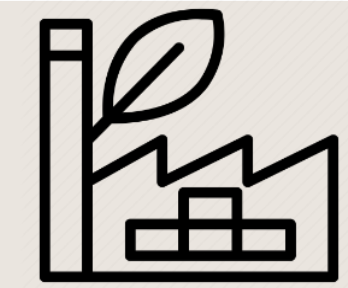
- The company carries out monthly checks on energy consumption, using the previous year as a reference each year.
- The company is aware of greenhouse gas emissions and energy saving improvement, and there are applications on this subject. However, no carbon footprint measurement has been performed and the processes that generate the most carbon emissions are not known.
- The company has switched to SPP as a renewable energy system. This has improved energy consumption compared to previous years. But now, it is still not 100%.
- The company has established an authorized team to reduce greenhouse gas emissions and increase energy savings. Although there is no training on carbon emissions yet, this is part of the short-term plans.
- Employees receive training on how to save energy in the company. Warning notices are posted on the use of machinery. There has been a switch from fluorescent bulbs to LED bulbs. Fuel consumption of company vehicles is monitored.
- A plan and system for the disposal of industrial waste has been established.
- Hazardous and non-hazardous wastes are defined. Metal, plastic, paper, cardboard, glass, scrap metal, batteries, cartridges, organic waste, and electronic waste are sent to licensed recycling facilities based on records. Waste sources are measured, and waste quantities are recorded on a regular basis.
- The company has an agreement with a licensed waste collection company.



## RESULTS - 3) GREEN FACTORY (73%)



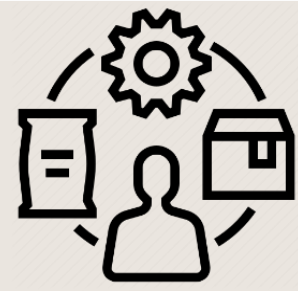
- Fluorescent lamps are not yet collected and sent to an approved recycling facility, but there are plans to do so.
- No waste oil is generated as it is used in food service.
- Hazardous and non-hazardous waste is stored separately. Employees are trained on hazardous and non-hazardous waste.
- Recycling procedures are in place for waste from production.
- Currently, there is no zero-waste system in the company, but there are targets for 2023 for the creation of such a system.
- Only mineral oil is used chemically in the plant.
- A chemical management plan is in place. An inventory of chemicals used, and suppliers of chemical products is maintained.
- Hazard signs and safety equipment are present in areas where chemicals are used. Well-marked, protected and sealed chemical storage and temporary storage areas are in place.
- Employees are educated on the hazards and risks of chemicals, proper use of chemicals, and emergencies. there is a procedure for chemical procurement and management.
- There is an action plan for chemical emergencies.



## RESULTS - 3) GREEN FACTORY (73%)



- The safety data sheet of the chemical used is available and posted in the storage rooms.
- The company has not committed to comply with ZDHC MRSL /RSL, but it has been discussed with Inditex and there are articles that show it is compliant.
- A flow chart is available for all processes in the plant.
- Inputs in terms of raw materials and all other resources are defined.
- Waste generation can be defined, and waste is segregated, collected, and sent to the appropriate parties.
- The measurement of carbon and water footprint has not been done yet.

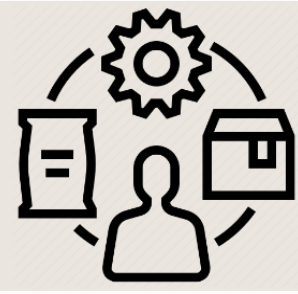


## RESULTS - 4) SUPPLY CHAIN MANAGEMENT (67%)



According to TEPAR TEXTILE sustainability criteria, the maturity level in the area of supply chain management is calculated at 67%.

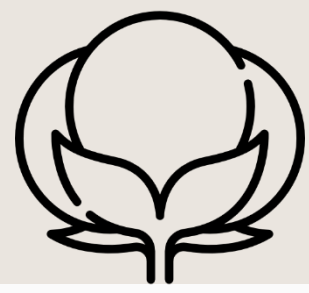
- The company has a supply chain management strategy. The sustainability certificates of suppliers are known, and their validity is observed. Compliance with the OEKO-TEX certificate and the EU Reach Regulation is monitored.
- However, suppliers' compliance with social compliance procedures is not observed.
- The company has information about its suppliers and the companies with which it has done business.
- Suppliers of raw materials, labels, and packaging are known, and digital records are maintained on a product-by-product basis. Plans are in place to move to RFID.
- The sustainability characteristics of all types of labels and packaging suppliers are known, but digital records are not kept on an import and export product basis.
- The company maintains digital records of raw material origin, composition, raw material manufacturers, raw material mass balances, cost calculations, batch numbers, and sales data for its products.
- Inspection procedures and reports for products used in production, inspection reports for the production process, quality certificates and monitoring data are recorded in a digital environment.
- All machine identifiers, process names and details, and time stamps used in production are recorded digitally. In addition, all social and environmental audit reports and return data are recorded.



## RESULTS - 4) SUPPLY CHAIN MANAGEMENT (67%)



- Supplier carbon footprint data is not yet tracked.
- There is a process for pre-assessment and selection of suppliers, but it does not include social impact, sustainable production methods, renewable energy and chemical program. The company has set the criteria for the OEKO-TEX Standard 100 certificate for contract manufacturers.
- Transparency is one of the company's sustainability goals. However, there are currently no transparency and traceability procedures for suppliers.
- Currently, no technology is used to confirm the sustainability characteristics of the supplied product, but there are TÜBİTAK projects.
- There is no study on product traceability technologies yet, but it is being planned.



## RESULTS - 5) RAW MATERIALS (73%)



According to TEPAR TEXTILE sustainability criteria, the maturity level in the raw materials section was calculated as 73%.

- The company, which produces in the field of technical textiles, uses various sustainable raw materials, including recycled polyester and recycled nylon, depending on customer requirements.
- Plastic and cardboard packaging are used as packaging materials.
- Although the company does not yet use biodegradable packaging, it is open to developing innovative materials. There are goals on this subject.
- Customers are provided with up-to-date information on sustainable qualities.
- The company does not have a design team, but the R&D department has been trained on sustainability. There are plans to introduce new spinning machines into the process. This will involve them in the design processes.
- The company has set targets for sustainable raw material use in annual production.
- The company, which considers the circular properties of the product when selecting raw materials, scrutinizes product safety with OEKO-TEX Standard 100 when selecting suppliers.
- In the company's annual production planning, there is a target for the percentage of sustainable raw materials, and in the selection of suppliers, attention is paid to the percentage of products supplied that are recycled.
- The company, which monitors sample costs, does not conduct improvement studies or use digital solutions to reduce sample costs.



## RESULTS - 6) DIGITAL MANAGEMENT (91%)



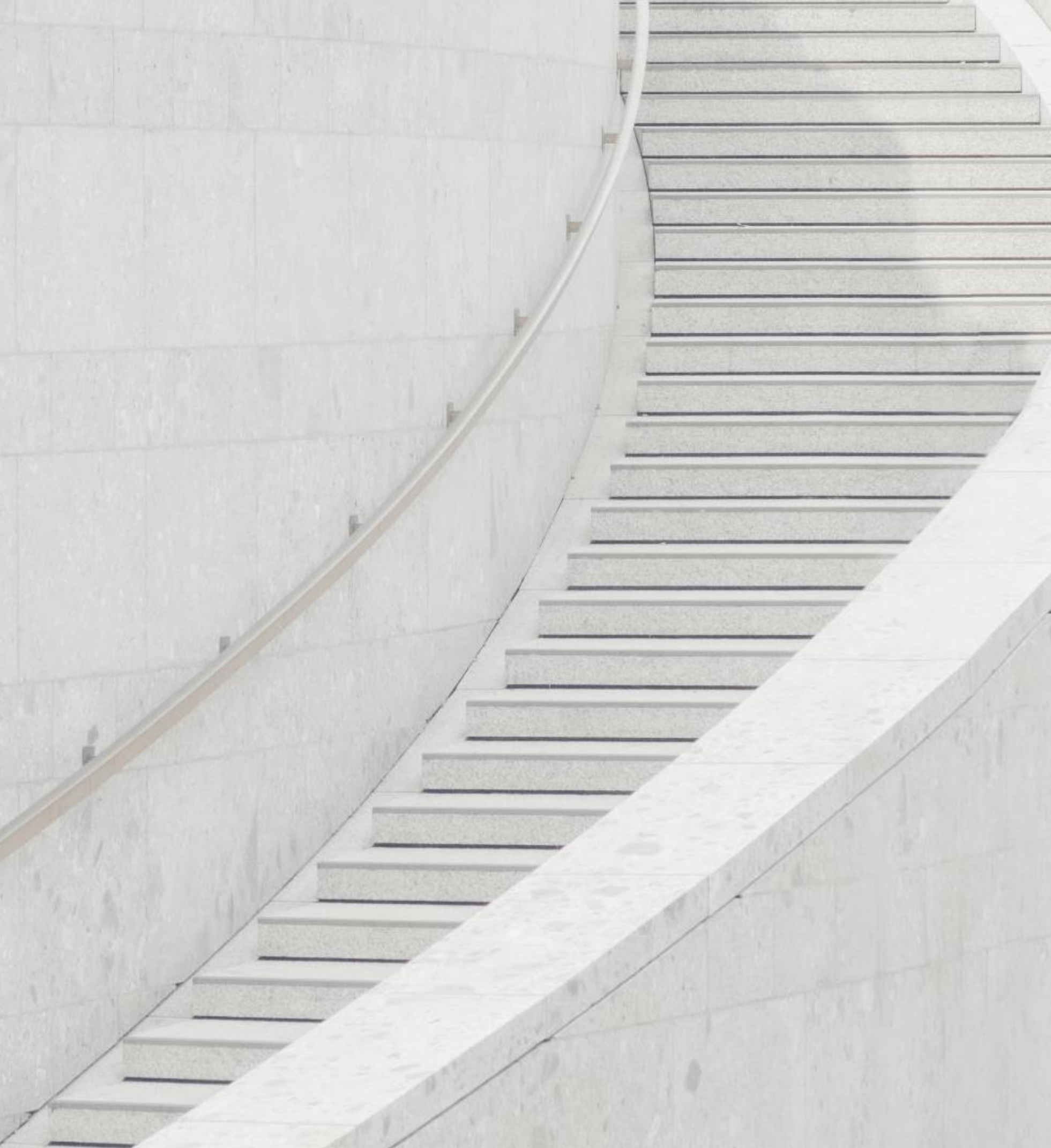
According to TEPAR TEXTILE sustainability criteria, the maturity level in the area of digitalization was calculated at 91%.

- The company monitors its processes digitally with an ERP system.
- The company has a digital platform that enables integrated inventory tracking in the production lines.
- All suppliers are registered digitally.
- Working hours and quality control are monitored with digital systems.
- Suppliers are evaluated through Excel.
- There are goals for transferring sample processes to digital platforms and managing them with digital solutions.
- The company has 3D product modeling software, yarn scanners, and fabric simulation systems.
- Digital modeling is performed in production.
- In addition, digital solutions are used in connection with line efficiency. (Starting with the Manufacture Execution System (MES)).



## TEPAR TEXTILE RECOMMENDATIONS ACCORDING TO THE CURRENT SITUATION ANALYSIS

- Among the 17 global goals agreed by the United Nations to end extreme poverty, fight inequality and injustice, and solve climate change by 2030, the priority objectives for companies in the coming period are to define and plan communications for internal and external stakeholders, organize training, and carry out reporting activities. and above all, a holistic approach is recommended, focusing on the contribution of management, which should take the title of sustainability at the highest level to spread the culture of sustainability throughout the company.
- TEPAR TEXTILE has already presented some system documents and a certificate for recycled raw materials on its way to sustainability. At this stage, the introduction of the ISO 50001 energy management system in the company will contribute greatly to energy saving and sustainability by systematically implementing energy management. In addition, the introduction of the ISO 18001 system (TS ISO 45001) in the company will allow occupational health and safety investigations to be placed on a more systematic basis.



## GENERAL RECOMMENDATIONS



## TEPAR TEXTILE RECOMMENDATIONS ACCORDING TO THE CURRENT SITUATION ANALYSIS

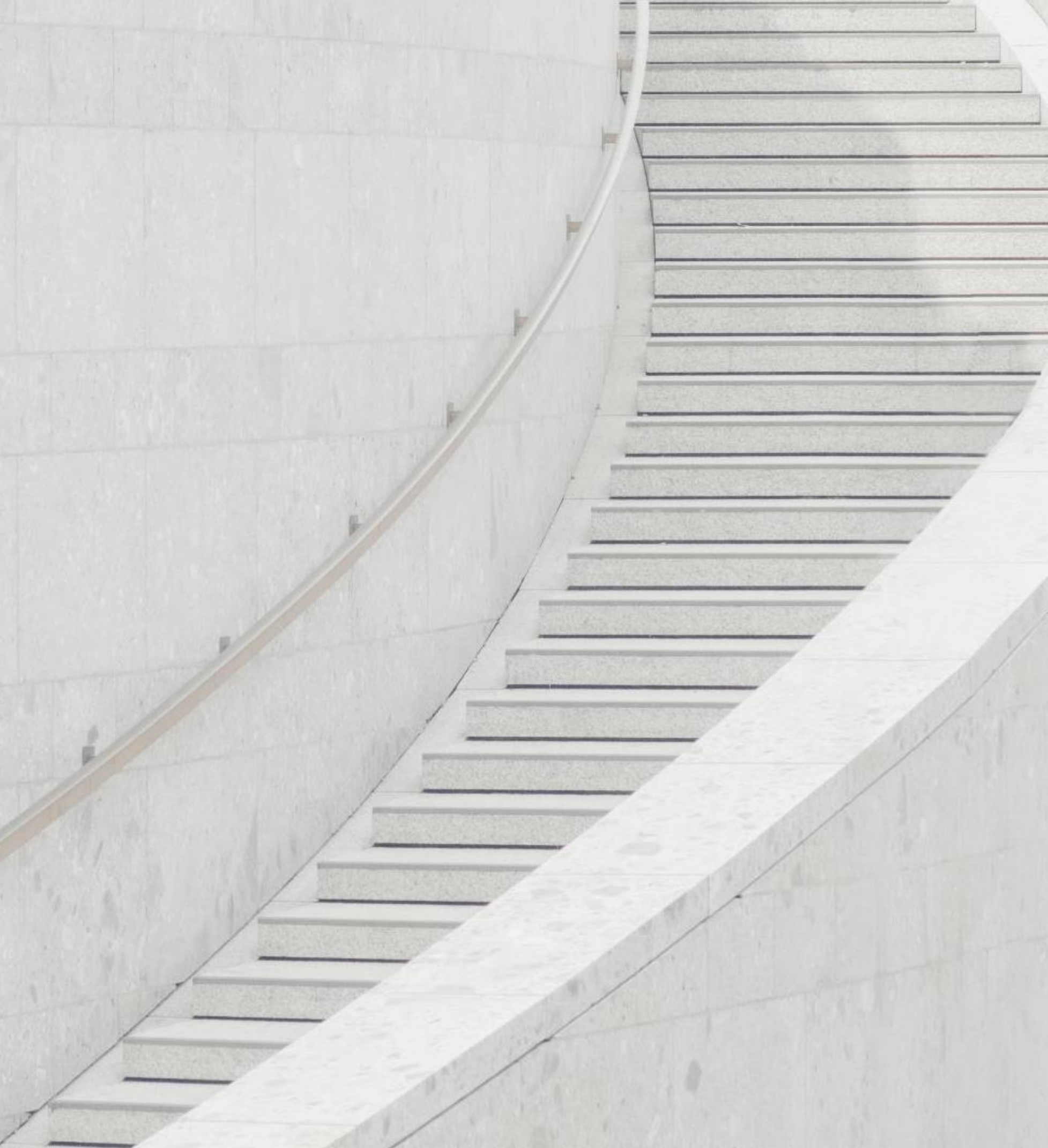
- It is recommended that the company track the social compliance issues it is currently performing with a globally recognized system. At this time, it is appropriate to become a member of the Higg Index platform, which was created to combine all certificates and systems and monitor social impacts with the FSLM module and all environmental impacts with the FEM module. At the end of the self-assessments and verification audits, both the current status of all clients/potential clients will be shared transparently through the system and the progress steps will be tracked.
- For external communication, promotional content that demonstrates the company's sustainability practices should be disseminated. A sustainability report should be prepared in accordance with GRI standards, shared with all internal and external stakeholders, and published in various channels. It is recommended that all employees (salaried and blue-collar) receive basic sustainability training, while personnel working on sustainability receive comprehensive sustainability training at regular intervals.
- It is recommended that awareness projects be implemented to reduce household water consumption. It is recommended that a rainwater harvesting system be installed for the facility. A water management policy should be established.

## GENERAL RECOMMENDATIONS



## TEPAR TEXTILE RECOMMENDATIONS ACCORDING TO THE CURRENT SITUATION ANALYSIS

- Currently, it is not necessary to conduct another study of air emissions from the facility. If the results of air emissions change due to changes in processes at the plant, emission measurements and monitoring of constituents should be conducted.
- A zero-waste system should be created in the company by making a zero-waste application. Waste reduction plans should be prepared, and measures should be taken. At least 3-year improvement targets should be established in accordance with the developed plans. Waste reduction projects should be planned, targets should be set based on specific data, and regular follow-up should be conducted. Training should be provided to raise awareness of waste remediation projects to be implemented.
- It is recommended to support them with innovative traceability technologies (Textile Genesis, Retraced, etc.) by creating guidelines that positively distinguish the company for product traceability.
- In order to increase the proportion of sustainable raw materials in the product range, it is beneficial to regularly present innovations to customers and to use fibers obtained through mechanical and chemical recycling technologies.

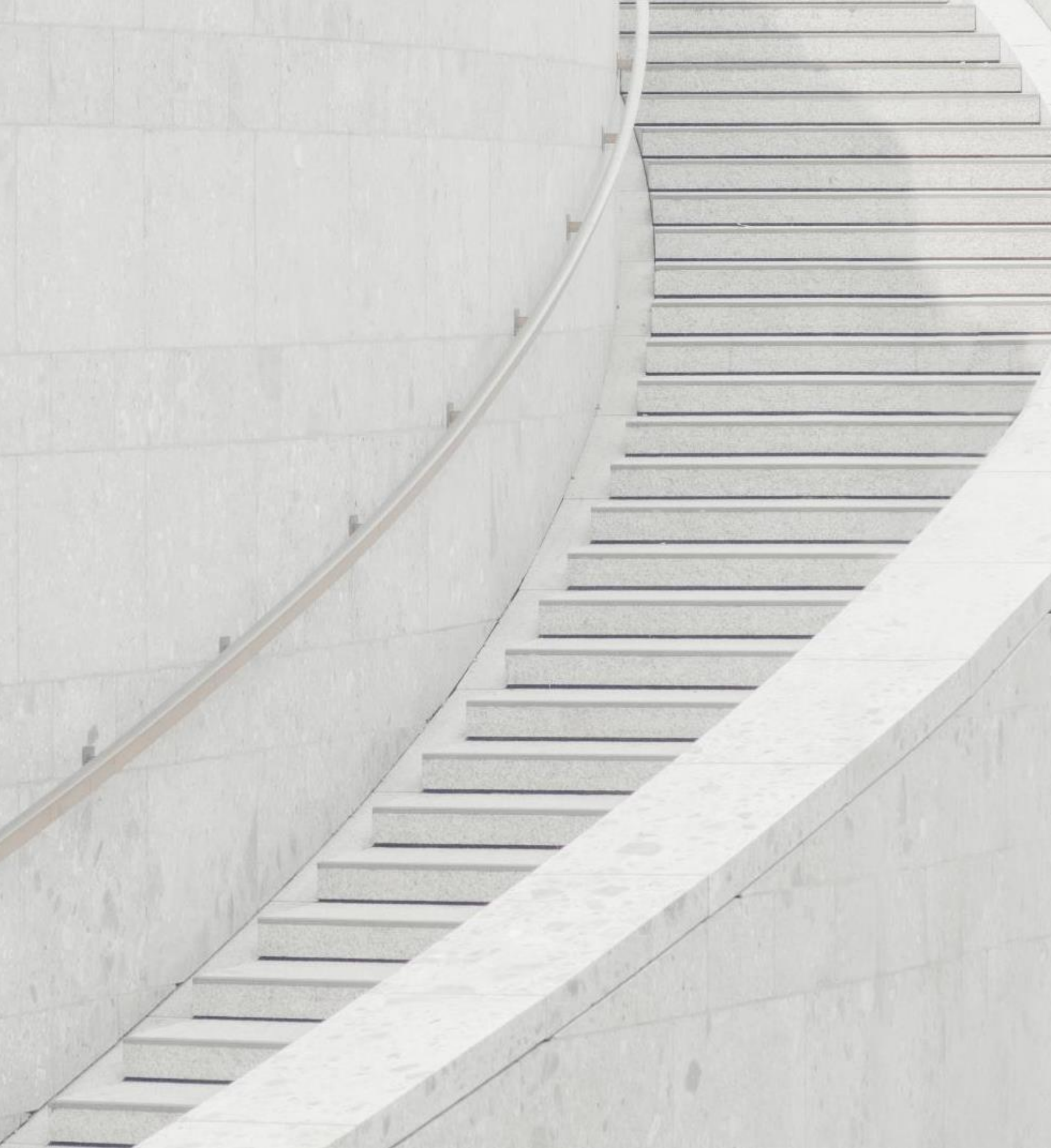


## GENERAL RECOMMENDATIONS



## TEPAR TEXTILE RECOMMENDATIONS ACCORDING TO THE CURRENT SITUATION ANALYSIS

- Collaborations can be established for R&D studies in the brand/university/manufacturer triangle for the development of innovative sustainable products that enable the company to differentiate itself in the market.
- Traceability of process steps and suppliers as part of supply chain management and transparent tracking of this monitoring process on a digital platform has arrived on the agenda of large and small brands in the industry. The content of this monitoring process may differ depending on the expectations of brands.
- For companies that have a systematic supply chain management strategy, we recommend including renewable energy criteria and sustainable production methods in supplier evaluation procedures, and creating and recording a comprehensive sustainable production map in digital environments that track suppliers' carbon footprint and recycling inventory data. It is necessary to map the steps in the supply chain on the company's website, communicate through different visual designs, and involve the customer in the process. Maps can be created without sharing sub-supplier information, and the path of a product whose raw material source is known can be explained. Such initiatives add value when positive divergence occurs.



## GENERAL RECOMMENDATIONS



## TEPAR TEXTILE RECOMMENDATIONS ACCORDING TO THE CURRENT SITUATION ANALYSIS

- It is recommended to carry out studies on the life cycle analysis of the products obtained both using sustainable raw materials and through the already advanced sustainable production of the company. In this way, all the environmental impacts of the product will be supported by scientific data and made transparent, compared with conventional products and communicated.
- Collaboration with the brands currently served to develop circular economy projects for post-industrial and post-consumer textile waste will contribute to the communication of Tepar's "Responsible Manufacturer Brand".
- In order to measure and reduce greenhouse gas emissions caused by the holistic pursuit of green business criteria, it is recommended that carbon footprint measurements be conducted soon.

## GENERAL RECOMMENDATIONS



## TEPAR TEXTILE RECOMMENDATIONS ACCORDING TO THE CURRENT SITUATION ANALYSIS

- Within the framework of the EU strategy for circular and sustainable textiles published in March 2022, the Eco-design Regulation, the Digital Product Passport and the Extended Producer Responsibility Regulations, which are among the new regulations in the countries of the European Union, determine the issues that will be focused on in the field of ready-made and textile products in the coming period, as follows.
  - Mandatory use of recycled fibers in textile products,
  - Open and accessible information on the recyclability and environmental sustainability of products,
  - Promotion of product design that considers the end of life and promotes the circular economy throughout the material life cycle by holding manufacturers responsible for the waste generated by their products.

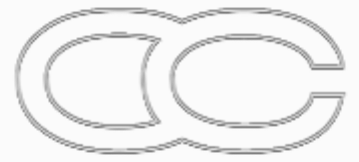
For TEPAR TEXTILE, it is important to prioritize recycling and traceability projects accordingly.

**GENERAL  
RECOMMENDATIONS**



## SUSTAINABILITY ROADMAP

- From the study conducted in December 2022 to analyze the current situation in the area of sustainability, it is clear that **TEPAR TEXTILE has a good level of maturity in the area of sustainability.**
- In addition, it will add value to evaluate current practices with global systems and platforms, communicate with internal and external stakeholders, measure with global metrics, and then begin the company's sustainability reporting studies recognized by international systems with a holistic perspective of these sustainability activities.
- In the following figure, which is a summary of the expert consultants' recommendations, the recommendations and suggested improvements for TEPAR TEXTILE sustainability management practices are set as short and medium term. However, the actual prioritization should be done by TEPAR TEXTILE management and sustainability team by aligning them with corporate strategies.



# SHORT-MEDIUM TERM RECOMMENDATIONS

## SHORT TERM (0-6 months)

- *Identify priority SDGs and sustainability commitments*
- *Training on sustainability for all internal employees and the main supply chain*
- *Establishment of a Zero -waste system*
- *Development of studies on sustainable raw materials with a focus on recycling*
- *Membership in the Higg Index platform and self-assessment in the FEM and FSLM modules*
- *Establishment of a water management policy*
- *Building energy audit*
- *Measurement of carbon footprint*

## MEDIUM TERM (6-12months)

- *Implement corporate social responsibility projects in line with the priority SDGs*
- *Transparency of the supply chain and integration of these elements into the product using various tracking technologies*
- *Communication of all projects and initiatives with all stakeholders through the corporate sustainability reporting study*
- *Establishment of an energy management system ISO 50001*
- *LCA study for a product defined as MSP (most sustainable product)*
- *Development of Post-Industrial and Post-Consumer Circularity projects in brand collaborations*
- *Higg-Index FEM & FSLM validation audit*
- *Preparation and publication of a sustainability report according to GRI standards*

