



# SUPPLIER & FACTORY HANDBOOK

CHEMICAL MANAGEMENT & CLIMATE  
PROGRAM



## PREAMBLE

This handbook has been created to give our suppliers and their respective factories a concentrated guideline on Tchibo's requirements for the continuous improvement of manufacturing processes in the textile\*, footwear and leather production.

The focus on eliminating hazardous chemicals and reducing water pollution in our supply chains remains a vital target for Tchibo and covers the first part of this handbook.

To harmonize individual requirements with the industry and simplify the implementation for our factories, we continuously adapt guidelines and tools from the Zero Discharge of Hazardous Chemicals (ZDHC) organisation. The chapters are based on the ZDHC Chemical Management System (CMS) Framework and consider links to ZDHC websites, documents and knowledge spaces.

In case of any questions, please contact [detox@tchibo.de](mailto:detox@tchibo.de)

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In addition to chemical and wastewater management, Tchibo has included a new chapter regarding the improvement of energy-efficient production to reduce the GHG emissions and contribute to limiting global warming at 1.5°C. The topic around **energy efficiency and climate protection** covers the second part of this handbook.

To achieve Tchibo's ambitious CO<sup>2</sup> reduction target, we need to work together with supply chain partners at all levels. The climate chapter is based on the Climate Action Playbook published by the United Nations Fashion Industry Charter for Climate Action (UNFCCC), which guides our suppliers on how to begin managing their CO<sup>2</sup> emissions and provide recommendations of possible actions they can take to improve energy efficiency and reduce CO<sup>2</sup> emissions.

In case of any questions, please contact [environmentalprotection@tchibo.de](mailto:environmentalprotection@tchibo.de)

Please note that the Chinese version of this handbook will be communicated by the **end of June 2023**



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# **DETOX / CHEMICAL MANAGEMENT**

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# 1. INTRODUCTION

Through joint action, we can move towards sustainable chemical management and protect the environment and human health - be a part of this movement!

## 1.1 REASON WHY

In 2011, the Greenpeace Detox campaign challenged top brands to make amends by working with their suppliers to eliminate all hazardous chemicals across their entire supply chain. This challenge was taken up by the fashion industry. Since 2014, Tchibo is committed to eliminate hazardous chemicals from its textile supply chains and continuously gain more transparency over the use, discharge and disposal of chemicals.

→ Download: [Tchibo Detox Commitment 2014](#)



- Textile manufacturing consumes large amounts of water: It takes 2,720 liters of water to make one cotton T-shirt - that's how much we normally drink over a 3-year period (Source: Worldwatch Institute)
- 25% of chemicals produced worldwide are used for textiles. A review of 2,400 chemicals used in clothing manufacturing found that approximately 30% posed a risk to human health (Source: Swedish Chemicals Agency)
- 20% of industrial water pollution worldwide comes from textile dyeing and finishing (Source: World Bank)

## 1.2 THE ZERO DISCHARGE OF HAZARDOUS CHEMICALS (ZDHC) FOUNDATION

Collaboration is fundamental to our work. As Tchibo believes that only collective action can transform the industry, we joined the Zero Discharge of Hazardous Chemicals Initiative (ZDHC) in 2018. The ZDHC is a multi-stakeholder organization that leads the fashion industry to eliminate hazardous chemicals from its supply chain ("Roadmap to Zero") and build sustainable chemical management practices.


The ZDHC Roadmap to Zero Program is navigated within three focus areas: **(1) Input, (2) Process and (3) Output**. Within each focus area, the ZDHC develops specific guidelines, tools and solutions to monitor chemical management and scale the implementation of the roadmap to zero program. These tools support us to achieve our targets to improve chemical and wastewater management in our supply chain.

→ Learn more about the [ZDHC Roadmap to Zero Program](#)



Source: [ZDHC Website](#)

Since 2022, suppliers can become a **vendor friend of the ZDHC** to scale and monitor the implementation of the ZDHC tools and guidelines in their supply chain!

 [Learn more about Friends of ZDHC for Vendors](#)

### 1.3 TCHIBO TARGETS ON CHEMICAL MANAGEMENT

With our Detox program, Tchibo aims to **reduce the use of hazardous chemicals in textile and leather production**. Improving chemical management practices is an ongoing process which depends on a high engagement and collaboration with our suppliers!

#### T1: Supply Chain Traceability:

We will achieve 100% transparency in our textiles & leather supply chain by 2027



We need to know our suppliers' factories to initiate change. Data helps us to identify their location, process steps, wastewater treatment, chemicals used and maturity on sustainability management. Our suppliers' support is essential here to increase traceability!

 [Learn about your contribution to this target on page 11](#)

#### T2: Supply chain Performance:



100% of our wet processing factories will be actively using the ZDHC tools by 2027

100% of our top wet processing factories will be MRSL compliant\* by 2027

Solutions such as the Higg FEM and ZDHC Gateway provide valuable indications on a factory's environmental performance. Using these tools is an essential measure to monitor supplier performance, identify risks and assign improvement measures.

 [Learn about your contribution to this target on page 11](#)

#### T3: Supply Chain Qualification:

100% of our top wet processing factories will have implemented visible measures to improve their chemical management practices.



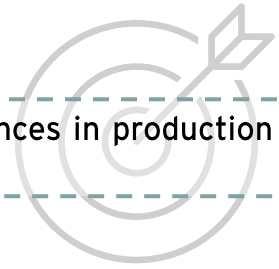
We intend to offer factories a portfolio of different onsite and offsite trainings to address their specific needs for improvement and build capacity on chemical management.

 [Learn about your contribution to this target on page 11](#)

\*through review of ZDHC ClearStream and InCheck reports // \*\* trainings not older than 3 year

## 2. OBJECTIVES & SCOPE

Become a role model in eliminating the use of hazardous substances in production and building sustainable chemical management.



### 2.1 OBJECTIVES

With this handbook, we want to create awareness for sustainable chemical management among our suppliers and offer them and their factories an orientation for implementation. The handbook is intended to provide the most necessary information in a brief and concise manner and to link to the ZDHC sources (ZDHC CMS Framework & Technical Industry Guide) for more in-depth reading and implementation guidance. It is primarily aimed at rather inexperienced suppliers **and** factories in this field. However, we consider it indispensable to deal with it intensively in order to be able to meet Tchibo an industry requirements.

#### To Do:



Supplier

- ✓ Consider joining the Friend of ZDHC- Vendor Program to build and monitor sustainable chemical management in textile supply chains.
- ✓ Scale Tchibo's Detox requirements down to your factories and ensure their implementation.

#### To Do:



Factory

- ✓ Register on the ZDHC Gateway and start monitoring your input and output processes.
- ✓ Join ZDHC Supplier to Zero to evaluate and build your CMS against the ZDHC CMS Framework.
- ✓ Cooperate with up- and downstream value chain partners (incl. chemical suppliers) to develop good chemical practices.

### 2.2 SCOPE

This handbook is applicable for all suppliers and their factories (manufacturing partners) along Tchibo's textile and leather supply chain - **mainly in wet processing and tanning levels**. The implementation of requirements focuses on factories that take over at least one of the following process steps:



**Different from Tchibo human rights / social monitoring, our detox requirements apply to all countries relevant for Tchibo's sourcing, including the European Union!**

# 3. GETTING STARTED

Know the Tchibo policies to implement the Detox requirements correctly!

## 3.1 TCHIBO POLICIES

The implementation and monitoring of our Detox Program is anchored in different internal policies and integrated, external guidelines.

### (1) TCHIBO SUPPLIER CODE OF CONDUCT (SCoC)

Our Supplier Code of Conduct (SCoC) covers requirements on environmental protection and chemical management. It is an integral part of the Non-Food buying contracts and therefore contractually binding for all suppliers and their producing factories.

#### EXTRACT FROM THE SCoC: ENVIRONMENTAL REQUIREMENTS

- ✓ Compliance with environmental laws and international standards
- ✓ Environmental permits and licences
- ✓ Implementation of an efficient Environmental Management System [EMS]
- ✓ No release of hazardous substances into the environment
- ✓ Increase of energy efficiency
- ✓ Implementation of the ZDHC Chemical Management System [CMS]
- ✓ Compliance against Tchibo RSL and ZDHC MRSL



➔ Download: [Tchibo Supplier Code of Conduct](#) (January 2023)

Suppliers are required to scale the requirements of the Tchibo SCoC down to their respective factories and ensure its implementation!



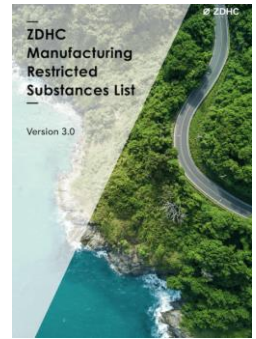
## (2) ZDHC MRSL

The ZDHC MRSL V2.0 / V3.0 complements the Tchibo RSL by providing a harmonized list of chemicals, which are strictly prohibited from intentional use in manufacturing facilities that process textile materials, leather, rubber, foam, adhesives and trim parts in textiles, apparel and footwear. The adoption is embedded in the Tchibo SCoC and contractually binding for all business partners and supply chains!



Source: [ZDHC Website](#)

→ Download the ZDHC MRSL 2.0. [here](#)



Source: [ZDHC Website](#)

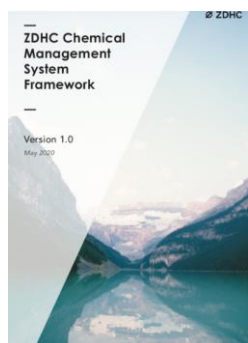
→ Download the ZDHC MRSL 3.0. [here](#)

**ZDHC MRSL Version 3.0 has been released in November 2022.** The implementation comes with a transition period of 12 months for by all stakeholders. During this time, both versions of the ZDHC MRSL remain active and it's possible to certify against them!

## (3) ZDHC CHEMICAL MANAGEMENT SYSTEM FRAMEWORK

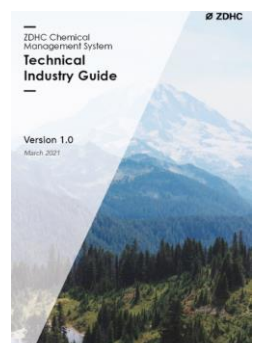
The ZDHC Chemical Management System (CMS) Framework sets minimum requirements for a chemical management system. All factories are required to consider the ZDHC CMS and Technical Industry Guide to continuously improve chemical management in textile production and harmonize with their approach with the industry.

For implementation and practical guidance, factories should follow the ZDHC CMS Technical Industry Guide (TIG)



Source: [ZDHC Website](#)

→ Download the ZDHC CMS Framework [here](#)



Source: [ZDHC Website](#)

→ Download the ZDHC TIG [here](#).

### 3.2 TCHIBO SUPPLIER DISCLOSURE FORM

The WPU disclosure form is an Excel sheet provided by Tchibo to collect general information about the wet processing units and/or tanneries. All suppliers receive this document from Tchibo purchasing department latest with order placement.

#### GENERAL DATA

Refers to name, address, country and contact details, ZDHC ID. This information is crucial to initiate or continue the onboarding process on the ZDHC Gateway!

#### PROCESS STEPS

Refers to the production process step(s) the factory is responsible for (in general and not project specific!).

#### WASTEWATER TREATMENT

Refers to the factory discharge type. The options given in the form are aligned with the ZDHC and industry standard

#### INPUT MANAGEMENT

Refers to chemical input tools that factories use to evaluate and monitor their chemical products to achieve MRS L compliance.

#### ENERGY MANAGEMENT

Refers to the energy sources factories use and targets they set for increased energy efficiency!

#### ENV. TRAINING

Refers to chemical and/or environmental training programs that factories participate in! These trainings should cover but are not limited to chemicals and wastewater - they can also inherit topics related to air emissions, energy, water, and environmental management systems.

**To Do:**

Supplier

- ✓ Fill in all information per textile project and forward the Excel sheet to the respective buyer latest with order placement!
- ✓ Fill in minimum 1 and maximum 3 main wet processing supplier(s) and/or tannery (s) that represent the main share of production involvement.

### 3.3 ZDHC Gateway

The ZDHC Gateway is a digital data base provided by the ZDHC to increase transparency on and evaluate chemical products that are used in production. Brands, supplier and chemical formulators can access the platform, share data and monitor progress towards improved chemical management and compliance against the ZDHC Guidelines.

→ Learn more about the [ZDHC Gateway](#)

Registration is free of costs and covered by the Tchibo membership!



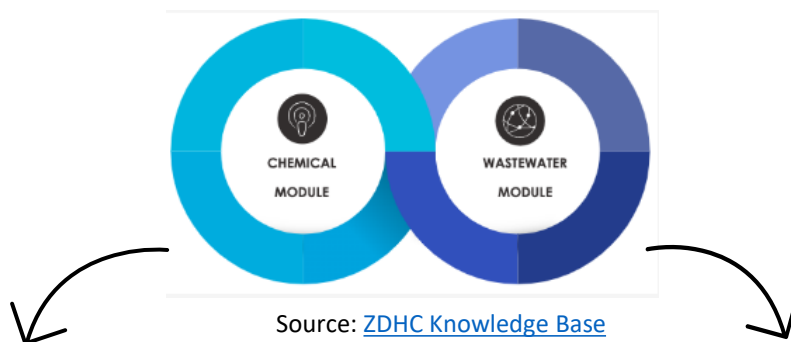
#### To Do:



Factory

- ✓ Register on the ZDHC Gateway.
- ✓ Tchibo will send an invitation link for the ZDHC Gateway to the factory contact.
- ✓ Open the link from the invitation E-Mail and complete your profile on the Gateway.
- ✓ After completing the registration, the ZDHC customer support will approve the registration.
- ✓ Connect with Tchibo on the Gateway once the profile is active.

The platform consists of **two modules** to monitor chemical input and output processes



#### Chemical Module:

This module is a database to enter and search for safer chemistry in textile production. It helps you to evaluate the conformance level of your chemical products against ZDHC MRSL, replacing hazardous substances with safer alternatives and share your chemical input with Tchibo!

#### Wastewater Module:

This module provides a global platform to commission and share verified wastewater test data according to the ZDHC Wastewater Guidelines. The ZDHC collaborates with several laboratories to carry out the wastewater and sludge testing and submit the data into the ZDHC Gateway.

Suppliers who join the ZDHC as a **vendor friend** receive access to the Gateway to monitor their factories in the implementation of the ZDHC tools and guidelines!

### 3.4 SAC HIGG FEM

The Sustainable Apparel Coalition (SAC) is a global, multi-stakeholder non-profit alliance with the aim to lead the apparel and footwear industry toward a shared vision of sustainability.

→ Learn more about the SAC: <https://apparelcoalition.org/>



In 2011 the SAC launched the Higg Index, an online platform to evaluate, share, benchmark and improve social and environmental performance on brand and facility level. It comprises five different tools for collecting, verifying and quantifying data regarding textile and footwear manufacturing and supply chains.

Source: [SAC Logo Guidelines](#)

The Higg FEM assesses 7 environmental impact areas on 3 levels:

1. Environmental Management Systems
2. Energy Use and Greenhouse Gas Emission:
3. Water Use
4. Wastewater
5. Emissions to Air (If Applicable)
6. Waste Management
7. Chemical Management



Source: [How To Higg Knowledge Base](#)

→ Learn more about the Higg Index: <https://higg.com/>

→ Learn more about the subscription packages and fees: [How To Higg](#)

#### To Do:



Factory

- ✓ Onboard to the Higg FEM for a transparent communication on your environmental and your chemical management performance!
- ✓ New factories, who have not yet worked with Higg FEM, start with the Facility Starter Subscription
- ✓ Carry out the annual FEM assessment!
- ✓ Connect with Tchibo and share your results! In this way, Tchibo can support you in implementing of improvement measures.

## 4. INPUT MANAGEMENT

Creating chemical inventory lists, evaluating chemicals against ZDHC MRSL and providing transparency on results are key steps to show and improve chemical inputs in production.

When it comes to using safer chemical inputs, factories should know what chemicals are being purchased (e.g. by creating and monitoring chemical inventory lists). The knowledge will support to promote the responsible use of chemicals, prevent pollution, increase traceability of chemicals, simplify chemical handling and control disposal costs.

### 4.1 CHEMICAL INVENTORY

A chemical inventory is the core element of a functional chemical management system. It can help factories to identify and organize all chemical related issues in their production, from the calculation of chemical consumption and purchasing decisions to responsible handling, usage and disposal.

Adequate input management consists of two key elements:

#### 1. Chemical Inventory List (CIL):

A list of all chemicals and chemical mixtures used and stored on-site. It contains relevant information concerning risks and components of the chemical product.

The ZDHC CIL Template is a standardized form to support you in your chemical documentation.

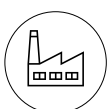
There are several service providers approved by the ZDHC, which offer digital platforms, not only create chemical inventories. They also support suppliers in the uploading them and assessing their compliance against the ZDHC MRSL and other industry standards

→ Download the template on the [ZDHC website](#).



Click on the logos to visit the website of the service providers →

#### To Do:



Factory

- ✓ Establish a process to create and update a CIL on a regular basis
- ✓ Nominate a team or responsible person to monitor, update and improve the CIL process
- ✓ Maintain and monitor chemical inventories by using at least one of the ZDHC approved Solution Providers including CleanChain®, Bhive®, BVE3®, 4sChem+ and toxclear.
- ✓ Create monthly chemical inventory lists on these platforms

→ Learn more about what a CIL should include in the [ZDHC Technical Industry Guide](#) (p. 68-76)

## 2. Safety Data Sheets (SDS)

Safety Data Sheets (SDS) are a fundamental source of information about the properties of a chemical, substance or mixture, its hazards and instructions for handling, disposal and **transportation**. It also provides information on first-aid, fire-fighting and exposure control measures. A proper SDS management is a prerequisite for the data input of hazards in a CIL.

### To Do:



Factory

- ✓ Ensure that chemical formulators provide SDS for purchased chemicals.
- ✓ Ensure that the abstract SDS is available in the local and/ or official language(s) and displayed at all relevant workplaces as well as storage areas

→ Learn more about SDS and implementation in the [ZDHC Technical Industry Guide](#) (p. 76-77)

## 4.2 ZDHC INCHECK REPORTING

The ZDHC InCheck Report is an easy-to-read chemical inventory report generated by ZDHC Solution Providers. It is based on a supplier's CIL and provides an overall summary of ZDHC MRSL conformance for all products listed in inventory. It further shows where improvements can be made. The ZDHC InCheck solution helps to achieve MRSL conformance and enables you to demonstrate your efforts towards sustainable chemistry.

→ Learn more about InCheck Reports in the [ZDHC Knowledge Base](#)

→ For implementation, see [ZDHC Performance InCheck Guidelines](#)



Source: ZDHC Website:  
[ZDHC Gateway](#)

### To Do:



Factory

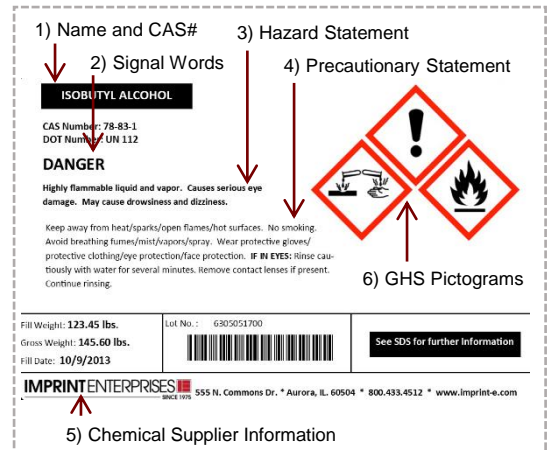
- ✓ In addition to the monthly CIL, use the Chemical Module of the ZDHC Gateway to search for ZDHC MRSL compliant chemicals (at least to level 1) and to replace non-conformant substances from your inventory.
- ✓ Encourage chemical formulators to onboard to the Gateway to evaluate their chemicals against the ZDHC MRSL and replace them through safer alternatives.
- ✓ Generate at minimum a **ZDHC InCheck Report** on the ZDHC Gateway at least once a year with the support of the ZDHC approved Solution Providers (see p.21)

## 4.3 STORAGE AND HANDLING

To control chemical input, prevent environmental damage and personal incidents, you should define a sound chemical storage and handling process. The key elements to ensure safe storage and handling are the following.

### 1. Chemical labelling:

Your chemical containers and packaging should have clear identification of the chemical products they contain. The labels must convey chemical safety information to the employees by using simple and understandable words (in official or local language) and images to document the hazard characteristics and safe handling requirements.



→ For implementation guidance, see [ZDHC Technical Industry Guide](#), (p. 79-85)

#### To Do:



Factory

- ✓ Make sure all chemical containers are labelled according to GHS label requirements
- ✓ Ensure cautionary and warning signs are available and clearly visible on each chemical

### 2. Chemical handling:

Handling chemicals includes all types of **chemical use, storage and transportation of chemicals**. A good definition and implementation of chemical handling practices help to avoid the risk of environmental pollution, personal injury and other economic implications.

#### To Do:



Factory

- ✓ Implement recommended measure for a safe handling of chemicals
- ✓ Establish a regular communication process to inform employees about hazards
- ✓ Carry out regular trainings and qualification for employees who handle chemicals
- ✓ Provide Personal Protective Equipment and first aid facilities to your employees.
- ✓ Mark emergency exits clearly and ensure they are free of obstacles at any time!
- ✓ Inform your employees who handle chemicals about hazardous communication and the GHS standard
- ✓ Develop SOPs for chemical storage incl. separation, segregation, isolation, transportation and use

## 5. CHEMICAL MANAGEMENT SYSTEM - PROCESS

Set up a chemical management system (CMS) to ensure safe handling and use of chemicals! The ZDHC CMS Framework supports this process.

### 5.1 CHEMICAL MANAGEMENT SYSTEMS (CMS)

The basis for establishing and monitoring sustainable chemical management practices is the development of a chemical management system (CMS). Therefore, factories need to implement an effective CMS that considers the entire life cycle of chemicals, including purchasing, storage, transportation, use and the safe disposal/ discharge of chemicals.

At a minimum, factories should set up at least a CMS with the following key elements:

#### 1. Chemical policy:

Define a policy to make your goals transparent and feasible to relevant stakeholders. You should ensure that the CMS policy is supported by top management!

#### 2. Chemical strategy:

Develop a strategy to ensure that commitments and policies developed are implemented in the long-term. It should always include goals, timeline, resource planning and control measure to ensure implementation, monitoring and continuous improvement of the chemical management system.

#### 3. Risk Assessments:

Carry out regular risk assessments to ensure that chemicals are purchased and used in agreement with the CMS. Consider regular alternative assessments to identify safer replacements of hazardous chemicals according to the ZDHC MRSL.

#### 4. Health & Safety Measures:

Define measures to ensure your employees and the environment are protected from chemicals used in production. Educate your employees on the chemicals used, how to control chemical exposure and to protect themselves and the facility in the event of an emergency.

→ For more details, see [ZDHC CMS](#)

→ For implementation guidance, see [ZDHC Technical Industry Guide](#)



## 5. Input and Output Monitoring

**Input:** When it comes to using safer chemical inputs, you should know what chemicals are being purchased (e.g. by creating and monitoring chemical inventory lists). The knowledge will support to promote the responsible use of chemicals, prevent pollution, improve traceability of chemicals, simplify chemical handling and control disposal costs

**Output:** It is essential that suppliers who generate waste (e.g. wastewater) have mechanisms, processes and procedures in place to manage, treat and discharge their output streams properly. All output (waste, wastewater, sludge, air, product) should be integrated in the CMS. Output also gives transparency on the effectiveness of a CMS.

## 6. Storage and Handling

Chemical storage and handling is a foundation of your CMS. Define procedures for handling chemicals in the safest way possible. Correct storage and handling can prevent incidents and accidents harmful for your employees, people and the environment.

## 7. Process Control

Processes, documents and record keeping related to the CMS support your implementation, traceability, transparency and continuous improvement towards good chemical management practices.

## 8. Capacity Building / Training

Your CMS needs consistent review and updates to ensure that it is up-to-date regarding regulations, requirements and processes. Implement a process to ensure updates and trainings to your employees.



For more details, see [ZDHC CMS](#)



For implementation guidance, see [ZDHC Technical Industry Guide](#)

### To Do:



Factory

- ✓ Continuously build and improve your chemical management system according to the ZDHC Chemical Management System (CMS) Framework.

## 5.2 ZDHC SUPPLIER TO ZERO (StZ)

The StZ is a e-learning platform. It supports the benchmarking of Chemical Management Systems against the ZDHC Chemical Management System (CMS) Framework and gives practical recommendations for the implementation of the ZDHC guidelines, platforms and further solutions in the respective factory context.

1. **Supplier to Zero:** It focuses on evaluating CMS against the ZDHC Chemical Management System (CMS) Framework through self-assessment. It includes different program levels: Foundational, progressive and aspirational, which suppliers can share with their customers via certificates.
2. **Resource Efficiency Module:** It supports the reduction of negative environmental impacts, such as greenhouse gas emissions and climate change, water scarcity and pollution

### Benefits:

- Qualification is based on own factory context as questions in the self-evaluation are based on the production processes carried out in one's own factory
- Up-to-date training material developed by experts
- Each module combines theoretical knowledge with real-life examples and case studies
- The completion can be carried out online anytime anywhere with 24h trainer support
- Tchibo contributes several tokens every year to cover certification costs for suppliers

### To Do:



Factory

- ✓ Parallel to the ZDHC Gateway, register on the Supplier to Zero (StZ) platform
- ✓ Carry out the Foundational Level self-assessment to benchmark chemical practices against the ZDHC CMS. Implement recommendations for improvement step-by-step
- ✓ Progress to progressive and aspirational level step by step

### How to get started with Supplier to Zero:

**Step 1:** Update your Gateway Organisation Profile

**Step 2:** Access the/ Register on the StZ Platform

**Step 3:** Evaluate status of CMS by starting with Zero Foundational Level

**Step 4:** Evaluate recommendations for improvements

**Step 5:** Implement improvements

**Step 6:** Chose payment method to generate a certificate\* (e.g. token or voucher code)

**Step 7:** Upload certification to Gateway

## 6. OUTPUT MANAGEMENT

Measuring and monitoring output streams, e.g. through wastewater and sludge testing, validates the efforts and effectiveness of chemical inputs and processes.

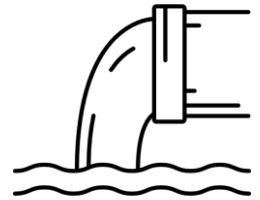
When factories generate outputs (e.g. waste, wastewater, sludge, air and product), they should have mechanisms and processes in place to manage, treat and discharge output streams properly.

### 6.1. WASTEWATER & SLUDGE TESTING

For wet processes along the textile and leather production, large quantities of water are used. After production, the generated wastewater is discharged to the environment. Poorly treated wastewater pollutes the environment and causes health risks to people living in surrounding communities.

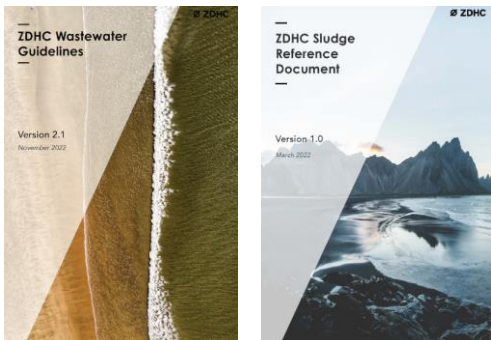
There are different ways to discharge wastewater:

1. Direct Discharge
2. Indirect Discharge with pre-treatment
3. Indirect Discharge without pre-treatment
4. Zero Liquid Discharge



→ Read more about the definitions in [Glossary](#) at ZDHC Knowledge Base

The quality of wastewater can be analysed through wastewater and sludge analysis. The ZDHC has published a **Wastewater Guideline V2.1.**, which covers the restriction and specific limit values for chemicals listed in the ZDHC MRSL.



Source: [ZDHC Website](#)

The ZDHC Wastewater Guidelines lists:

- The various sample points of analysis that must be collected. These depend on the discharge type of the supplier
- The limit values for conventional parameters, heavy metals and MRSL chemicals
- The testing methods that should be applied by the laboratory

→ Download the [Wastewater Guidelines V2.1](#) and [Sludge Reference Document](#)

The ZDHC collaborates with several international testing institutes with local offices to carry out regular onsite wastewater and sludge analysis.

→ View the list of approved [ZDHC laboratories](#)

**To Do:**



Factory

- ✓ Contact a ZDHC approved laboratory
- ✓ Carry out wastewater and sludge tests acc. to the ZDHC Wastewater Guidelines V2.1 at least annually to identify inefficiencies in wastewater treatment processes and compliance against the ZDHC standard

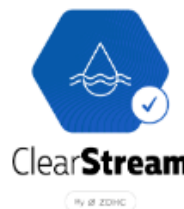
→ To learn how to manage wastewater test results, visit the [ZDHC Knowledge base](#)

→ For implementation guidance, view the [ZDHC Technical Industry Guide](#), p- 93-99.

**6.2. ZDHC ClearStream Reporting**

The ZDHC ClearStream Report is a wastewater reporting standard. It helps you to understand your wastewater test results and share them with the brands on the ZDHC Gateway. This report is generated for any verified wastewater test results submitted by the ZDHC Accepted Laboratory that created the wastewater report.

→ Learn more about ClearStream Report in the [ZDHC Knowledge Base](#)



Source: [ZDHC Website – ClearStream](#)

**To Do:**



Factory

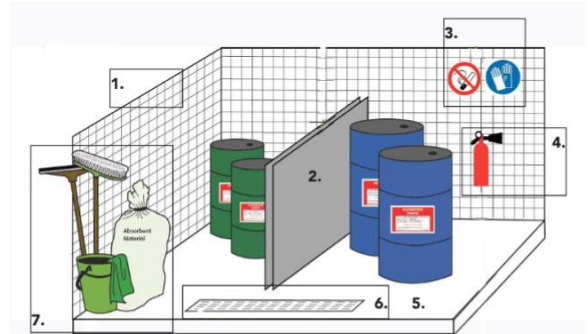
- ✓ Ensure proper wastewater treatment prior to discharge
- ✓ Register on the ZDHC Gateway™ and use the Wastewater Module
- ✓ Carry out an **annual wastewater test** according to the ZDHC Wastewater Guidelines V2.1 with a ZDHC approved laboratory.
- ✓ Generate and upload the relevant ZDHC ClearStream Report on the ZDHC Gateway
- ✓ ClearStream Reports must meet at least ZDHC foundational level!

### 6.3. WASTE AND DISPOSAL

Any remaining solid waste from production processes must be collected and disposed of in accordance with local regulations. Factories should implement mechanisms and processes for a proper disposal of any hazardous waste.



For implementation guidance, view [ZDHC Technical Industry Guide](#), p.103-106



1. **Latticework** instead of concrete walls surround the area
2. Containers with **incompatible wastes are separated** by a dike, berm or wall
3. **Warning signs** and emergency information are displayed
4. **Fire extinguisher** is kept ready at easily accessible location
5. **Floor** is made of impermeable material or plastic sheets or lined with sheets
6. Floor house provisions for **containment** and dyking
7. **Spill kit**/Clean-up material is available

Source: [ZDHC Technical Industry Guide](#)

#### To Do:



Factory

- ✓ Identify and quantify all types of solid waste in the facility
- ✓ Separate and classify hazardous waste according to its risk to people and environment
- ✓ Contain and store of hazardous waste in a separate place
- ✓ Define cycles to ensure a regular evaluation and update of waste disposal according to legal, local, international and industry developments
- ✓ Nominate a responsible team or person to ensure adequate transportation and disposal of waste
- ✓ Provide regular trainings for the responsible team or person and employees
- ✓ Ensure management and employees are regularly informed on changes and updates

## 7. CONTINUOUS IMPROVEMENT & QUALIFICATION

Knowledge is power! Capacity building and regular trainings help to evaluate and improve your chemical management and develop best practices.

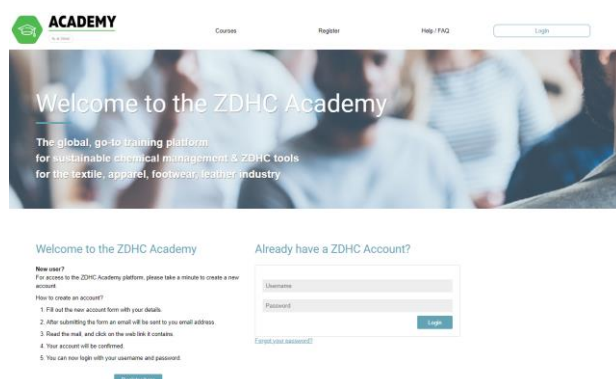
Factories should be eager to continuously improve chemical management practices and set a good example in the industry by regularly evaluating non-compliances and gaps in their CMS, understanding the root causes, defining improvement measures and setting targets to build a sustainable chemical management. As regulations, requirements and processes change, factories need to apply mechanisms that ensure a consistent review and update of their CMS.

### 7.1 ZDHC ACADEMY

The ZDHC Academy is a training platform to raise awareness and develop skills on sustainable chemical management - especially in terms of ZDHC guidelines, solutions and platforms. Suppliers can use the ZDHC Academy to build their knowledge on improved CMS.

The platform gives the opportunity to either:

1. Register for paid in-person or online training courses, delivered by individual ZDHC Accredited Trainers.
2. Participate or watch webinars provided by ZDHC staff to gain knowledge and expertise.



Source: [ZDHC Academy website](https://www.zdhcacademy.com)

[Learn more about the ZDHC Academy](https://www.zdhcacademy.com)

#### Registration process:

To sign up for a training session, the platform offers a training calendar through which learners can connect with the ZDHC accredited training provider

→ Access the platform: [ZDHC Academy Platform](https://www.zdhcacademy.com)

**Certification process:** In order to receive a certification, the following steps need to be completed:

1. Sign-up for one of the online or in-person training sessions
2. Complete a pre-course questionnaire prior to the training session
3. Fully attend the training session
4. Complete the post-training survey
5. Complete the exam and score 75% or above

## 7.2 ONSITE VISITS / VERIFICATIONS

In some cases, it is helpful to have a third party on-site to verify a CMS and identify non-compliances. The target is to support suppliers in the CMS evaluation and to consult the on suitable remedial measures. Services may relate to root cause analysis and CAP development, chemical input assessments, ETP analysis or training programs over a longer time period.

The assignment of on-site visits or other improvement services is based on the data provided on the ZDHC Gateway. These relate to non-compliances in ZDHC ClearStream reports and a low compliance rate in the ZDHC InCheck reports.



### To Do:



Factory

- ✓ If the ZDHC ClearStream report shows chemical fails and the ZDHC InCheck report shows a compliance rate below 80%, apply improvement measures aligned with Tchibo
- ✓ Participate in training programs nominated by Tchibo and implement according measures

## 7.3 LWG Certification (for tanneries only!)

The Leather Working Group (LWG) is a not-for-profit membership organization, working to creating meaningful change across the global leather supply chain. Since its foundation in 2005, LWG has evolved to become the world's largest leather industry-specific membership organization, representing over 1,800 businesses in over 60 countries.



Source: [LWG Website](#)



Learn more about the [Leather Working Group](#)

### To Do:



Factory

- ✓ Besides onboarding to the ZDHC Roadmap to Zero Program, all tanneries producing for Tchibo are preferably LWG certified.
- ✓ The full LWG audit report and certificate should be shared with Tchibo
- ✓ No application of chromium tanning!

Tchibo prohibits leather sourcing from Bangladesh!

## 8. CHECKLISTS

### 1.) SUPPLIERS

|                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Become familiar with the Tchibo Detox Program (ZDHC Roadmap to Zero) and Policies (Tchibo SCoC, ZDHC MRSL, ZDHC CMS Framework).   |
| <input type="checkbox"/> | Cascade and implement Tchibo requirements on the Detox Program in your respective supply chain.   |
| <input type="checkbox"/> | Consider joining the Road to Zero Program by becoming a „Vendor Friend“ of the ZDHC.  |
| <input type="checkbox"/> | Fill in the complete WPU Disclosure Form (min. 1 WPU/ Tannery, max. 3 WPUs/ Tanneries with highest share in manufacturing of respective project)  |
| <input type="checkbox"/> | Send the complete WPU Disclosure Form to your respective purchaser at Tchibo or send it directly to <a href="mailto:detox@tchibo.de">detox@tchibo.de</a> latest upon order placement.   |
| <input type="checkbox"/> | Support the Tchibo Detox team in follow-up communications with wet processing factories and tanneries regarding onboarding to the ZDHC Gateway, Wastewater and ClearStream Reporting, Incheck reporting and improvement measures. |

### 2.) FACTORIES (WPUs)

#### GENERAL

|                          |  |
|--------------------------|--|
| <input type="checkbox"/> | Provide suppliers with complete factory data in the WPU Disclosure Form  |
| <input type="checkbox"/> | Use the Higg Index (Higg FEM) and carry out the annual assessment to provide more transparency on your environmental performance (e.g. energy, air emissions, waste..) |

#### ZDHC ONBOARDING:

|                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Register on the ZDHC Gateway (Chemical and Wastewater Module) and join the ZDHC Roadmap to Zero Program. Costs are covered by Tchibo! |
| <input type="checkbox"/> | Connect with Tchibo on the ZDHC Gateway once profile is set up  |

#### ZDHC INPUT:

|                          |  |
|--------------------------|--|
| <input type="checkbox"/> | Use the platform of a ZDHC approved solution provider (CleanChain, Bhive, BVE3 etc.) and generate monthly chemical inventory lists (CILs). Evaluate compliance of your products against the ZDHC MRSL 3.0. |
| <input type="checkbox"/> | Create a ZDHC InCheck report with your solution provider at least one a year and upload it to the ZDHC Gateway - chemical module.  |
| <input type="checkbox"/> | Check if your chemicals are at least Level 1 compliant with the ZDHC MRSL. Request your chemical suppliers to use the ZDHC Gateway to register and assess their products.                                  |



## ZDHC CMS PROCESS

|                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Register on the Supplier to Zero (StZ) Platform. It is free of costs!   |
| <input type="checkbox"/> | Start the StZ assessment to reach at least the foundational level. Improve to progressive level with a year.  |
| <input type="checkbox"/> | Purchase the StZ Foundational Level Certificate - Tchibo can provide you with a ZDHC Token to pay for the fee! Contact <a href="mailto:detox@tchibo.de">detox@tchibo.de</a> . |

## ZDHC OUTPUT:

|                          |  |
|--------------------------|--|
| <input type="checkbox"/> | Carry out an annual wastewater and sludge analysis acc. to the ZDHC Wastewater Guidelines V2.1 with a ZDHC approved laboratory. Results should at least meet foundational level! |
| <input type="checkbox"/> | Upload the ZDHC ClearStream report of the respective wastewater and sludge test to the ZDHC Gateway - wastewater module.   |
| <input type="checkbox"/> | Register on the ZDHC Supplier to Zero to assess your CMS against the ZDHC CMS framework. Achieve at least the foundational level and improve to progressive level.               |

## QUALIFICATION / IMPROVEMENT

|                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Register on the ZDHC Academy (free of charge) to build knowledge and capacity around sustainable chemical management.   |
| <input type="checkbox"/> | In case of chemical fails in ZDHC ClearStream report and a compliance rate below 80% in ZDHC InCheck report, provide at least a corrective action plan to Tchibo within 4 weeks. Further improvement measures (e.g. trainings) are communicated individually by Tchibo. |

## 3.) CHEMICAL SUPPLIER

|                          |  |
|--------------------------|--|
| <input type="checkbox"/> | Register on the ZDHC Gateway!  |
| <input type="checkbox"/> | Evaluate compliance of your chemical products against the ZDHC MRSL 3.0. |
| <input type="checkbox"/> | Publish your products on the ZDHC Gateway - Chemical Module              |

## 4.) FACTORIES (TANNERY)

### GENERAL

- Provide suppliers with complete factory data in the WPU Disclosure Form
- Use the Higg Index (Higg FEM) and carry out the annual assessment to provide more transparency on your environmental performance (e.g. energy, air emissions, waste..)

### ZDHC ONBOARDING:

- Register on the ZDHC Gateway (Chemical and Wastewater Module) and join the ZDHC Roadmap to Zero Program. Costs are covered by Tchibo!
- Connect with Tchibo on the ZDHC Gateway once profile is set up

### ZDHC INPUT:

- Use the platform of a ZDHC approved solution provider (CleanChain, Bhive, BVE3,...) and create monthly chemical inventory lists (CILs). Evaluate compliance of your products against the ZDHC MRSL 3.0.
- Create a ZDHC InCheck report with your solution provider at least once a year and upload it to the ZDHC Gateway - chemical module.
- Check that your chemical products are at least level 1 compliant with the ZDHC MRSL. Request your chemical formulators to use the ZDHC Gateway to register their products.

### ZDHC CMS PROCESS

- Register on the Supplier to Zero (StZ) Platform. It is free of costs!
- Start the StZ Assessment at achieve at least foundational level. Improve to progressive level over time (e.g. within a year)
- Purchase the StZ Foundational Level Certificate - Tchibo can provide you with a ZDHC Token to pay for the fee! Contact [detox@tchibo.de](mailto:detox@tchibo.de).

### ZDHC OUTPUT:

- Carry out an annual wastewater and sludge analysis acc. to the ZDHC Wastewater Guidelines V2.1 with a ZDHC approved laboratory. Results should at least meet foundational level!
- Upload the ZDHC ClearStream report of the respective wastewater and sludge test to the ZDHC Gateway - wastewater module.
- Register on the ZDHC Supplier to Zero to assess your CMS against the ZDHC CMS framework. Achieve at least the foundational level and improve to progressive level.

## QUALIFICATION / IMPROVEMENT

|                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Register on the ZDHC Academy (free of charge) to build knowledge and capacity around sustainable chemical management.   |
| <input type="checkbox"/> | In case of chemical fails in ZDHC ClearStream report and a compliance rate below 80% in ZDHC InCheck report, provide at least a corrective action plan to Tchibo within 4 weeks. Further improvement measures (e.g. trainings) are communicated individually by Tchibo. |
| <input type="checkbox"/> | Provide Tchibo with the LWG certificate and full report! You must not apply chromium tanning for Tchibo products.   |
| <input type="checkbox"/> | Consider further social requirements requested by <a href="mailto:scoc@tchibo.de">scoc@tchibo.de</a> .  |

## 9. DOCUMENTS & LINKS (DETOX)

### 1.) DOCUMENTS

#### GENERAL:

|  |   |
|--|---|
| Tchibo Social Code of Conduct (SCoC) - GERMAN  | <a href="https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/b9186d6052-1674011550/social-and-environmental-code-of-conduct-for-business-partners-german.pdf">https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/b9186d6052-1674011550/social-and-environmental-code-of-conduct-for-business-partners-german.pdf</a>   |
| Tchibo Social Code of Conduct (SCoC) - ENGLISH | <a href="https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/Odddf57629-1674011549/social-and-environmental-code-of-conduct-for-business-partners-english.pdf">https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/Odddf57629-1674011549/social-and-environmental-code-of-conduct-for-business-partners-english.pdf</a> |
| Tchibo Social Code of Conduct (SCoC) - CHINESE | <a href="https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/a81dc7eb5d-1674011550/social-and-environmental-code-of-conduct-for-business-partners-chinese.pdf">https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/a81dc7eb5d-1674011550/social-and-environmental-code-of-conduct-for-business-partners-chinese.pdf</a> |
| Tchibo Social Code of Conduct (SCoC) - BENGALI | <a href="https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/6384b37ee1-1674011549/social-and-environmental-code-of-conduct-for-business-partners-bengali.pdf">https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/6384b37ee1-1674011549/social-and-environmental-code-of-conduct-for-business-partners-bengali.pdf</a> |
| Tchibo Social Code of Conduct (SCoC) - TURKISH | <a href="https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/a7ca31e09f-1674011549/social-and-environmental-code-of-conduct-for-business-partners-turkish.pdf">https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/a7ca31e09f-1674011549/social-and-environmental-code-of-conduct-for-business-partners-turkish.pdf</a> |
| Tchibo Sustainability Report (2021)            | <a href="https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/aa1dcd4898-1674011549/tchibo-nachhaltigkeitsbericht-2021-german.pdf">https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/aa1dcd4898-1674011549/tchibo-nachhaltigkeitsbericht-2021-german.pdf</a>   |
| Tchibo Factory List                            | <a href="https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/ffc1a81f21-1674011549/tchibo-manufacturers-and-wet-processing-units-english.xlsx">https://www.tchibo-nachhaltigkeit.de/media/pages/mm_download-files/ffc1a81f21-1674011549/tchibo-manufacturers-and-wet-processing-units-english.xlsx</a>                                 |

#### INPUT:

|  |   |
|--|---|
| ZDHC MRSL 3.0                              | <a href="https://mrsl-30.roadmaptozero.com/">https://mrsl-30.roadmaptozero.com/</a>   |
| ZDHC MRSL Update Principles and Procedures | <a href="https://downloads.roadmaptozero.com/input/ZDHC-MRSL-Principles-and-Procedures">https://downloads.roadmaptozero.com/input/ZDHC-MRSL-Principles-and-Procedures</a> |
| ZDHC MRSL 2.0                              | <a href="https://mrsl-20.roadmaptozero.com/">https://mrsl-20.roadmaptozero.com/</a>   |
| ZDHC Performance InCheck Guidelines        | <a href="https://downloads.roadmaptozero.com/input/Performance-InCheck-Guidelines">https://downloads.roadmaptozero.com/input/Performance-InCheck-Guidelines</a>           |
| List of ZDHC approved MRSL certifiers      | <a href="https://downloads.roadmaptozero.com/input/MRSL-certifiers">https://downloads.roadmaptozero.com/input/MRSL-certifiers</a>   |

## DOCUMENTS & LINKS (DETOX)

### PROCESS (CMS):

|   |   |
|---|---|
| ZDHC Chemical Management System (CMS) Framework | <a href="https://downloads.roadmaptozero.com/process/ZDHC-CMS-Framework">https://downloads.roadmaptozero.com/process/ZDHC-CMS-Framework</a> |
| ZDHC CMS Technical Industry Guide               | <a href="https://downloads.roadmaptozero.com/process/ZDHC-CMS-TIG">https://downloads.roadmaptozero.com/process/ZDHC-CMS-TIG</a>             |
| ZDHC Chemical Inventory List (CIL) Template     | <a href="https://downloads.roadmaptozero.com/process/CIL-Templates">https://downloads.roadmaptozero.com/process/CIL-Templates</a>           |
| ZDHC InCheck Solutions                          | <a href="https://downloads.roadmaptozero.com/process/InCheck-Solutions">https://downloads.roadmaptozero.com/process/InCheck-Solutions</a>   |

### OUTPUT:

|  |   |
|--|---|
| ZDHC Wastewater Guidelines V2.1                                      | <a href="https://downloads.roadmaptozero.com/output/ZDHC-Wastewater-Guidelines">https://downloads.roadmaptozero.com/output/ZDHC-Wastewater-Guidelines</a>   |
| ZDHC Sludge Reference Document                                       | <a href="https://downloads.roadmaptozero.com/output/Sludge-Reference-Document">https://downloads.roadmaptozero.com/output/Sludge-Reference-Document</a>     |
| ZDHC Wastewater Guidelines Industry Standard Implementation Approach | <a href="https://downloads.roadmaptozero.com/output/WWG-Implementation-Approach">https://downloads.roadmaptozero.com/output/WWG-Implementation-Approach</a> |
| List of ZDHC approved laboratories                                   | <a href="https://downloads.roadmaptozero.com/output/WW-labs">https://downloads.roadmaptozero.com/output/WW-labs</a>   |

## 2.) LINKS

### GENERAL:

|                               |   |
|-------------------------------|---|
| Tchibo Sustainability Website | <a href="https://www.tchibo-nachhaltigkeit.de/en">https://www.tchibo-nachhaltigkeit.de/en</a>   |
| ZDHC Roadmap to Zero Program  | <a href="https://www.roadmaptozero.com/">https://www.roadmaptozero.com/</a>                     |
| ZDHC Implementation Hub       | <a href="https://www.implementation-hub.org/about">https://www.implementation-hub.org/about</a> |

## DOCUMENTS & LINKS (DETOX)

|                               |   |
|-------------------------------|---|
| ZDHC Knowledge Base - ENGLISH | <a href="https://knowledge-base.roadmaptozero.com/hc/en-gb">https://knowledge-base.roadmaptozero.com/hc/en-gb</a> |
| ZDHC Knowledge Base - CHINESE | <a href="https://knowledge-base.roadmaptozero.com/hc/zh-cn">https://knowledge-base.roadmaptozero.com/hc/zh-cn</a> |
| ZDHC Knowledge Base - TURKISH | <a href="https://knowledge-base.roadmaptozero.com/hc/tr">https://knowledge-base.roadmaptozero.com/hc/tr</a>       |
| ZDHC Detox.live Map           | <a href="https://www.detox.live/map">https://www.detox.live/map</a>   |
| ZDHC Detox Fashion Radar      | <a href="https://www.zdhc.org/detoxfashionradar">https://www.zdhc.org/detoxfashionradar</a>                       |

### PLATFORMS & TOOLS:

|                                  |   |
|----------------------------------|---|
| ZDHC Gateway                     | <a href="https://www.zdhc-gateway.com/">https://www.zdhc-gateway.com/</a>   |
| ZDHC Gateway - Chemical Module   | <a href="https://www.zdhc-gateway.com/modules/chemical-module">https://www.zdhc-gateway.com/modules/chemical-module</a>     |
| ZDHC Performance InCheck         | <a href="https://www.zdhc-gateway.com/reports/incheck">https://www.zdhc-gateway.com/reports/incheck</a>                     |
| ZDHC Gateway - Wastewater Module | <a href="https://www.zdhc-gateway.com/modules/wastewater-module">https://www.zdhc-gateway.com/modules/wastewater-module</a> |
| ZDHC ClearStream                 | <a href="https://www.zdhc-gateway.com/reports/clearstream">https://www.zdhc-gateway.com/reports/clearstream</a>             |
| ZDHC ChemCheck                   | <a href="https://www.zdhc-gateway.com/reports/chemcheck">https://www.zdhc-gateway.com/reports/chemcheck</a>                 |
| ZDHC Supplier to Zero            | <a href="https://www.implementation-hub.org/supplier-to-zero">https://www.implementation-hub.org/supplier-to-zero</a>       |
| Login - ZDHC Supplier to Zero    | <a href="https://supplier.roadmaptozero.com/">https://supplier.roadmaptozero.com/</a>                                       |
| ZDHC Academy                     | <a href="https://www.implementation-hub.org/academy">https://www.implementation-hub.org/academy</a>                         |
| Login - ZDHC Academy             | <a href="https://academy.roadmaptozero.com/">https://academy.roadmaptozero.com/</a>   |

**Contact ZDHC: [support@zdhc.org](mailto:support@zdhc.org)**



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# **CLIMATE PROTECTION**

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# 1. INTRODUCTION

Protecting the climate is one of the most urgent tasks of our time. All of us need to act. The textile industry has therefore set out the way together.

## 1.1 REASON WHY

Man-made carbon emissions - from burning fuel, gas & coal - cause global warming. This leads to an increase in extreme weather events such as floods and droughts, threatening the livelihoods of millions of people. We do not have much time to prevent the worst, by limiting global warming to 1.5° Celsius: **We must act now!**



Reducing greenhouse gases is a challenge that also brings opportunities:

- Cost savings from reducing energy consumption
- Eliminate fuels and use renewable, low-cost energy sources.
- Drive innovations in low-carbon materials, processes and products
- Reputational benefits with stakeholders including investors, employees, customers, policy makers, NGOs, and more



- [Climate Action Playbook](#) (page 3)
- [United Nations: Sustainable Development Goal 13 Climate Action](#)
- [Remaining carbon budget](#)

## 1.2 TCHIBO'S CLIMATE GOALS

Tchibo is committed to ambitious climate goals: We have set our emission reduction targets based on the methods of the Science Based Target Initiative (SBTi).



Tchibo commits to reduce absolute...

- Scope 1 & 2 (Tchibo's own) GHG emissions 51% by 2030
- Scope 3 (upstream & downstream value chain) GHG emissions 15% by 2030 from a 2018 base year

In the long term, by 2050, we want to emit no more greenhouse gases and have confirmed this with a net-zero commitment.



- [Tchibo Sustainability Reporting](#)
- [Science Based Targets - Companies taking action](#)

### 1.3 FASHION CHARTA

Tchibo is a member of the United Nations Fashion Industry Charter for Climate Action (Fashion Charter). Together with 160 Organisations, we joined forces for an important industry movement to make the textile industry climate neutral.

To join the Fashion Charta, fashion brands and manufacturers must support the ambition of the Paris Agreement in limiting global temperature rise to 1.5 degrees Celsius above pre-industrial levels. By setting themselves an approved Science Based Target or at least reduce 50% GHG emission reductions by 2030 against a baseline no earlier than 2019 and receive net-zero emissions by no later than 2050.

To achieve these goals, the signatories of the Fashion Charter are committed to further sub-goals and working on solutions in various working groups. Some selected signatories:



In this handbook, we are referencing to the 'Climate Action Playbook', which you can download under the following link:

- ➔ [Climate Action Playbook](#)
- [UN Climate Change: Fashion Industry Charter for Climate Action](#)



Below each chapter you will find the page in the playbook which we are referring to and further links with more information.

## 2. OBJECTIVES AND SCOPE

Together with its partners in the value chain, Tchibo wants to put ambitious climate protection into practice.

### 2.1 OBJECTIVES

With this handbook, we want to create awareness for climate protection among our suppliers and offer an initial orientation for implementation. The handbook is intended to provide the most necessary information in a brief and concise manner and to offer further sources for more in-depth reading. It is primarily aimed at rather inexperienced suppliers in this field.

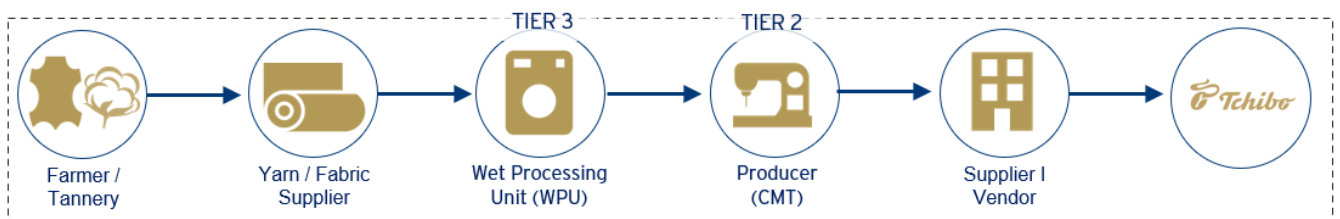
However, we consider it indispensable to deal with it intensively in order to be able to meet future requirements. Many of the necessary changes, for example in energy supply, take time, which we actually no longer have. It is therefore all the more important to start now to take steps towards a climate-neutral future in order to avoid risks and take advantage of opportunities.

What to do at a glance:

- ✓ Set up a corporate carbon footprint
- ✓ Set a target and reduce emissions
- ✓ Cooperate with up- and downstream value chain partners to decarbonise
- ✓ Report on challenges and success

### 2.2 SCOPE

This handbook is applicable for our manufacturing partners along Tchibo's textile supply chain in all levels:



This manual is not addressed to customers, logistics service providers or disposal and recycling companies.

## 3. GETTING STARTED

First step: You need to determine carbon footprint, because you can't manage what you can't measure.

### 3.1 UNDERSTANDING GHG EMISSIONS

Greenhouse gases are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of thermal infrared radiation emitted by the Earth's surface, the atmosphere itself, and by clouds. This property causes the greenhouse effect. The most relevant GHGs for the fashion industry are

- **Carbon dioxide (CO<sub>2</sub>)**– produced by the burning of fossil fuels such as coal and oil
- **Methane (CH<sub>4</sub>)**–which may be emitted in the use of natural gas for fuel and is also released in the leather supply chain (i.e. from cattle)

In addition, there are five further climate-relevant gases (see figure below). To simplify the presentation, the relevant climate gases are usually converted into CO<sub>2</sub>-equivalents (CO<sub>2e</sub>) according to their climate impact. This way we only need to calculate with one unit. When setting up a corporate carbon footprint, emissions are divided into three so-called 'scopes', according to the recognized Greenhouse Gas Protocol:

#### Scope 1

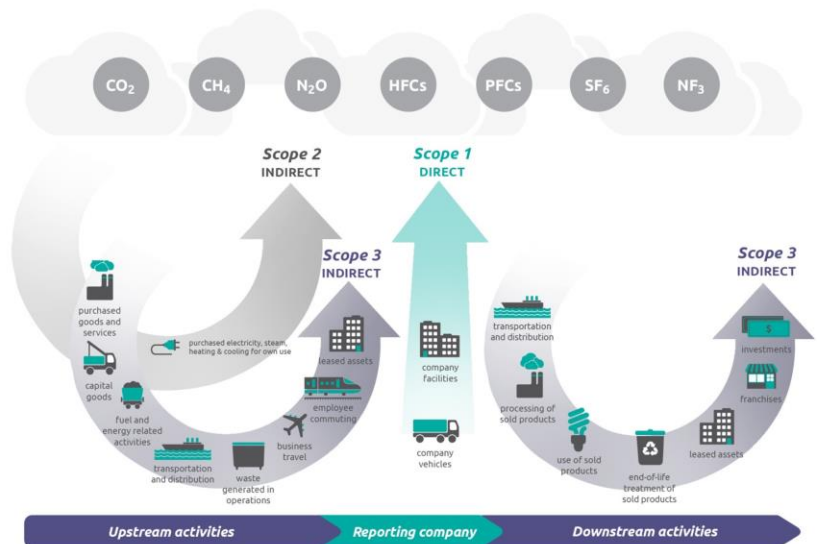
Direct GHG emissions that are emitted from sources owned or controlled by a company (e.g. gas fired boiler)

#### Scope 2

Indirect GHG emissions from the generation of electricity, heat and steam purchased by a company.

#### Scope 3

Indirect emissions from a company's up- and downstream value chain activities. (e.g. from cotton purchased)

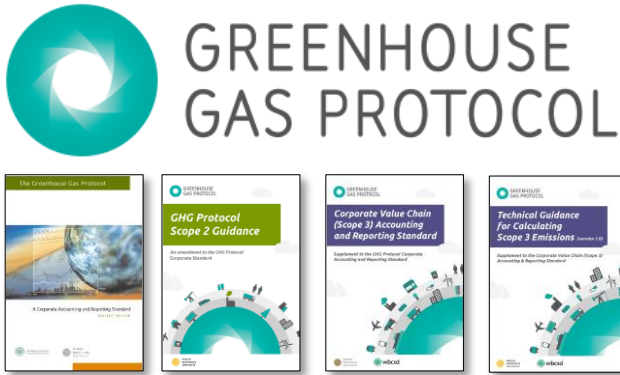


Please refer to the appendix at the end of this book for a detailed look of scope 1 - 3 activities .

[Climate Action Playbook](#), p. 11-14

## 3.2 SET UP YOUR CARBON FOOTPRINT

When you set up your corporate carbon footprint, you should follow the guidance of the Greenhouse Gas (GHG) Protocol, as this is the most accepted reporting standard.



- Initiative founded in 1998
- 9 out of 10 fortune 500 companies reporting accordingly
- Numerous other standards build on it, including ISO 14060
- The use of this standard increases credibility
- Set of guidance documents are available

The following steps need to be followed to compile a corporate carbon footprint:

### 1. Set organizational boundaries

Define a clear scope of your inventory by using the equity share or the financial control methodology. Practically speaking, this answers the question of which parts of the company are covered; often this is not so obvious because there are subsidiaries, for example.

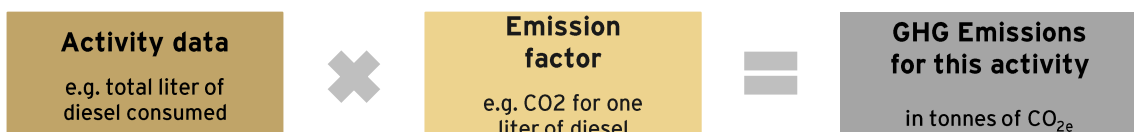
### 2. Identify emission sources by categories

Identify all business activities that consume energy or materials by asking colleagues, external experts and consult industry guidelines. All emissions are separated into five categories:

- Stationary combustion: fuel burned in stationary sources (e.g. boiler, heater)
- Mobile combustion: fuel burned in stationary sources (cars, ships)
- Process emissions from physical or chemical processes (e.g. cement calcination)
- Fugitive emissions: intentional or unintentional releases (CH<sub>4</sub> from gas pipelines, or HFCs from air conditioning)

### 3. Gather data on emissions

After you have identified all relevant business activities, you need to gather quantitative data to quantify the GHG emissions. Usually, you will do this by multiplying activity data with emission factors:



The sources of activity data are various departments, e.g. accounting, purchasing or suppliers, as well as service providers (e.g. waste disposal, travel agency).

The sources of emission factors are:

- Governmental organizations (e.g. UK Department for Environment, Food and Rural Affairs, DEFRA)
- Science and research institutions (e.g. Intergovernmental Panel on Climate Change, IPCC)
- Industry associations (e.g. Verband der Automobilindustrie, VDA)
- Commercial consultants or life cycle inventory databases, (e.g. Quantis or Ecoinvent)

As you will have to deal with a huge number of activity data and emission factors data tools can simplify the calculation, increase data quality, and thus improve accuracy. Huge variety of tools are available: Industry specific or generic, based on MS-Excel or as web-based application, stand alone or interconnected with other reporting systems.

#### **4. Roll-up GHG emissions to a corporate level**

Sum-up calculations from all departments, country units, branches within the defined organizational boundaries. Follow the Scope 1, 2 & 3.1 - 3.15 logic that is shown on the graphic above. In addition, you could use company specific sub-categories to measure the performance of business units.

## 4. REPORTING EMISSIONS

The best practice is to show transparency about your emissions to your customers and the public.

In addition to the internal use of emission data, publication is common. Business partners, but also other stakeholders, have an interest in this climate-relevant data. In this way, the company's impact on the climate and optimally also the CO2 intensity of individual products can be estimated. Brands in particular should include this supplier-specific data in their Scope 3 calculations. This is the only way to create a realistic picture of the emissions across their entire value chain. Depending on the addressee, different reporting tools are available. We would like to briefly introduce three common ones:

→ [Climate Action Playbook](#), p. 27-29

### 4.1 SAC HIGG

Where and how to report emissions?

Many brands have been requesting their suppliers to report their emissions on HIGG FEM by SAC. The advantage of using HIGG FEM is that you can report your emissions at once and share it with multiple brands. At Tchibo, we encourage you to make use of this tool to report your emissions.



- 
- [SAC HIGG FEM](#)
  - [FEM Facility Users Guide](#)

### 4.2 OWN REPORTING FORMAT

Another way of reporting is through your corporate's sustainability reports or websites (ideally data shared in these formats should also be audited/validated by a credible 3rd party). You could refer to common sustainability reporting standards including GRI standard (Global reporting initiative), SASB (Sustainability accounting standards board) and TCFD (The Task Force on Climate-related Financial). You compare the different standards and choose the one that fits your company profile.

- 
- [GRI Reporting Standard](#)
  - [SASB Reporting Standard](#)
  - [TCFD Reporting Standard](#)

### 4.3 CDP (CARBON DISCLOSURE PROJECT)

CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.



For more established companies, you may sign up to become a CDP Supply Chain member (fees may apply) to invite your suppliers to report environmental data through CDP's questionnaires.



[CDP - Supply Chain Membership](#)

To increase the validity of the data, an external review by an auditor can be carried out.



## 5. TARGET SETTING

Without a goal, no targeted action!

We know from climate research that limiting global warming to 1.5° C would prevent the worst consequences for our planet. This results in a residual budget of CO2 emissions that must not be exceeded. To meet this target, CO2 emissions must be reduced by about 50% by 2030 and by 2050 no CO2 emissions at all.

This level of ambition should also be reflected in the objectives of companies and could be used as a rough but sufficient orientation.

Those who want to be very precise, can use the methods of the Science Based Targets initiative (SBTi), which are available for download (click on the picture). Due to the complexity, it is advisable to work this out with an expert.

### Tchibo SBTi TARGET as an example

Tchibo GmbH commits to reduce absolute scope 1 and 2 GHG emissions 51% by 2030 from a 2018 base year

Tchibo GmbH also commits to reduce absolute scope 3 GHG emissions 15% by 2030 from a 2018 base year.



- [Climate Action Playbook](#) , p.31-35
- [Ambitious corporate climate action - Science Based Targets](#)

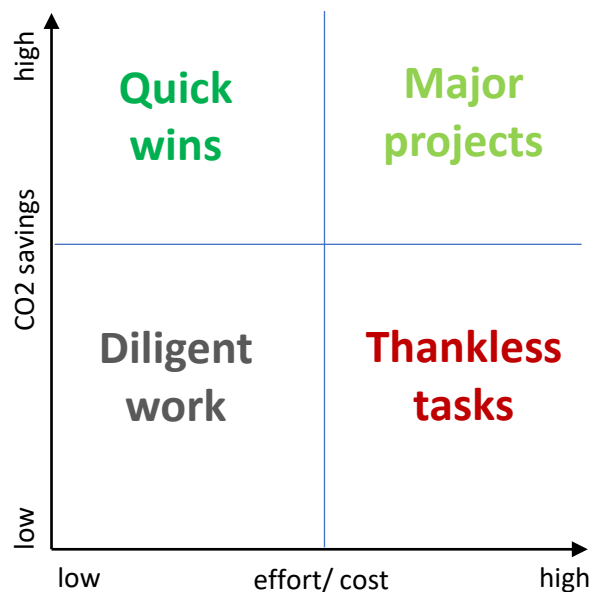
## 6. Emission reductions

Let's get it done: here you can act very concrete!

Now it's getting concrete! After taking stock of emissions and setting a goal, comes the most important part: emissions reductions!

CO<sub>2</sub> emissions are reduced when material and fossil energy consumption is lowered. A further advantage is that this usually reduces operating costs at the same time. Orientate yourself on the idea of efficiency: maximum output (product) should be achieved with as little input (material, energy) as possible. In a company, there are a multitude of starting points in almost all departments.

Start a brainstorming with relevant colleagues to identify possible measures to reduce energy and material consumption. Evaluate on the criteria *CO<sub>2</sub> saving* and *effort/ costs*. The matrix on the right side might help to prioritize the implementation of the measures. Start immediately with the "quick wins", which can usually save operating costs and reduces emissions immediately and without significant investment. Assemble teams for the more complex "major projects". Often investments are necessary for these measures, and unlike the quick wins, these projects only pay off over time. Due to the complexity of these projects an external consultant might be helpful.



Tasks and responsibilities should also be defined for "diligent work". Regular maintenance is an example of these kinds of measures. Remember that many small and simple measures add up to a big saving. The "thankless tasks" should have the lowest priority and might be monitored from time to time to reevaluate the cost-benefit consideration.

Alternatively, you can also commission an engineering office to carry out an energy audit at your site. As a result, you will receive an overview of possible measures and their potential. If you set up a management system according to the plan-do-act-check cycle and set yourself SMART sub-goals, you will achieve your climate goals on time!



[Climate Action Playbook](#), p.37-51

In addition to increasing energy efficiency, the use of renewable energy is an opportunity with a big impact. These energy sources are low carbon technologies. They can be purchased as alternative fuels in the form of biomass or as green electricity from the grid. Generating your own electricity from solar panels is also an economical climate protection measure and should be evaluated for your location.

### Examples for GHG emission reduction measures in production

|                                    |   |
|------------------------------------|---|
| <b>Operation &amp; maintenance</b> | <ul style="list-style-type: none"> <li>▪ Awareness raising and training for staff</li> <li>▪ (automatically) turn off machines after use</li> <li>▪ Regular maintenance</li> <li>▪ Improve insulation, regular thermal imaging checks</li> <li>▪ Leakage prevention (e.g. for compressed air)</li> <li>▪ Reduce scrap and overproduction</li> </ul> |
| <b>Technical equipment</b>         | <ul style="list-style-type: none"> <li>▪ LED lighting with motion detectors</li> <li>▪ Waste heat utilization</li> <li>▪ Computer aided cutting (waste reduction)</li> <li>▪ Servo motor for e.g. sewing &amp; cutting machines</li> <li>▪ Variable speed drive motors for fans and pumps</li> <li>▪ Dry- instead of wet-processing</li> </ul>      |
| <b>Energy supply</b>               | <ul style="list-style-type: none"> <li>▪ Use of combined heat and power</li> <li>▪ Purchase of renewable energy by tariff or power purchasing agreement (PPA)</li> <li>▪ Generation of renewable energy by e.g. photovoltaic</li> <li>▪ Use biomass instead of coal</li> </ul>  |

If you need further support, such as training or technical advice, the following resources may be helpful:

Free learning platforms:

- [Climate and Environmental Change \(atingi.org\)](https://www.atingi.org/)
- [FAIS by WWF](#) (available in Chinese only)



Training programs

- [Bluwin Academy](#) (e-learning)
- [ZDHC Implementation Hub Resource Efficiency Module](#) (REM)
- [Clean by Design by Aii](#)

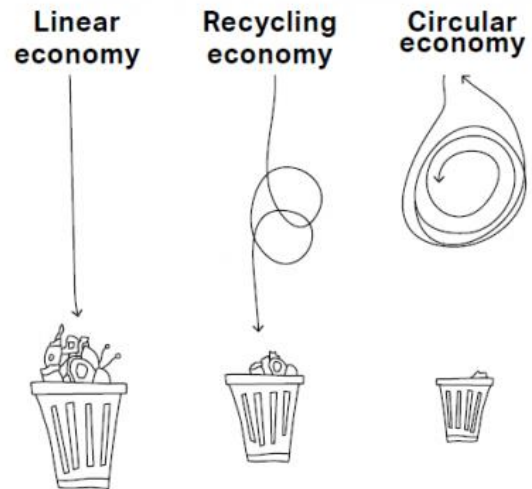


## 7. CIRCULAR ECONOMY

Circular Economy aims to decouple economic growth from resource consumption

In our current economy, we take resources, make products from them, and eventually throw them away as waste - the process is linear. In a circular economy, by contrast, we aim to keep materials and products in use for as long as possible to maximize their value and eliminate waste and pollution. In a circular economy, products are designed to be long-lasting, to be repaired, reused and finally recycled at their end-of-life.

Circular Economy is not only good for the environment but also good for business. By reducing waste and increasing resource efficiency, businesses can save costs, improve customer loyalty, create new revenue streams.



To adopt circular economy principles, textile suppliers can take the following steps:

### To Do:



Factory

- ✓ Choose recycled materials instead of virgin, e.g. certified by [Global Recycling Standard \(GRS\)](#), Please note: there are different sources, e.g. recycled polyester from PET bottles, post-production wastes or from post-consumer waste like discarded clothes (preferred)
- ✓ Prioritize mono-material composition over material blends, because it's easier to recycle when the garment reaches its end-of-life.
- ✓ Choose low impact production methods like dope dyeing vs. piece dyeing or waterless dyeing to reduce wastewater
- ✓ Minimize cut-off waste, e.g. by lay plan and pattern optimization or utilise fully fashioning for knitwear
- ✓ Reuse or resell your own production waste, like cutting waste, fabric selvages, damaged/scrap yarn, excess garments. Check-out waste trading platforms like [Reverse Resources](#)
- ✓ Aim for high quality durable products, that can be used and reused again, to increase the lifetime value for costumers
- ✓ Make design, sourcing, and sales processes digital - such as using 3D design and digital showrooms



[Climate Action Playbook](#), p. 53-57

## 8. CLOSING AND NEXT STEPS

Cooperation across the entire value chain is needed - only together can we make the difference!

To meet current and future requirements, cooperation along the value chain is indispensable. We need to share information on GHG emissions and work together to ensure compliance with the 1.5°C target through better product design and more efficient production. We have very little time to do this, given the scale of the effort that needs to be made.

Many relevant investments and technologies have long life cycles and payback periods. Therefore, from now on, it is necessary to stop investing in the use of fossil fuels and to give preference to renewable energies, which are also economically more favorable in the long term. In addition, material use and energy consumption must be significantly reduced; this is the only way to secure the future of our industry.

Tchibo strongly believes that the following concrete steps are necessary:



Factory

- ✓ **Let us cooperate!**  
In case of any questions, comments or suggestions please get in touch with our environmental team via [environmentalprotection@tchibo.de](mailto:environmentalprotection@tchibo.de)
- ✓ **Set up your carbon accounting**  
We would like to encourage you to enter data on your production annually into the commonly used HIGG FEM and connect your account with Tchibo.
- ✓ **Set yourself ambitious GHG reduction targets**  
Communicate them and regularly follow them up. Best practice is to submit an SBTi target for your organization.
- ✓ **Phase out coal**  
As a member of the Fashion Charter, Tchibo has committed to phase out the use of coal in the production of our products by 2030. If you still use coal as an energy source at your site, please familiarize yourself with alternatives and plan a change of energy source in good time.
- ✓ **Reduce your GHG emissions**  
Work on energy efficiency and the use of renewable energy as outlined in chapter 6.

## 9. DOCUMENTS & LINKS

### 1.) DOCUMENTS

#### GENERAL:

|                         |   |
|-------------------------|---|
| Climate Action Playbook | <a href="https://unfccc.int/sites/default/files/resource/20_REP_UN_FIC_Playbook_V7.pdf">https://unfccc.int/sites/default/files/resource/20_REP_UN_FIC_Playbook_V7.pdf</a> |
|-------------------------|---|

### 2.) LINK

#### GENERAL

|  |   |
|--|---|
| Thibo Sustainability Reporting                                 | <a href="https://www.tchibo-nachhaltigkeit.de/en">https://www.tchibo-nachhaltigkeit.de/en</a>   |
| Science Based Targets - Companies taking action                | <a href="https://sciencebasedtargets.org/companies-taking-action#table">https://sciencebasedtargets.org/companies-taking-action#table</a> |
| United Nations: Sustainable Development Goal 13 Climate Action | <a href="https://sdgs.un.org/goals/goal13">https://sdgs.un.org/goals/goal13</a>   |
| Remaining carbon budget  | <a href="https://www.mcc-berlin.net/en/research/co2-budget.html">https://www.mcc-berlin.net/en/research/co2-budget.html</a>               |

#### PLATFROM & TOOLS

|   |   |
|---|---|
| SAC HIGG FEM                                  | <a href="https://apparelcoalition.org/higg-facility-tools/">https://apparelcoalition.org/higg-facility-tools/</a>   |
| FEM Facility Users Guide                      | <a href="https://howtohigg.org/fem-user-selection/fem-facility-users-landing/">https://howtohigg.org/fem-user-selection/fem-facility-users-landing/</a>   |
| Global Recycling Standard (GRS)               | <a href="https://certifications.controlunion.com/en/certification-programs/certification-programs/grs-global-recycle-standard">https://certifications.controlunion.com/en/certification-programs/certification-programs/grs-global-recycle-standard</a> |
| GRI Reporting Standard                        | <a href="https://www.globalreporting.org/">https://www.globalreporting.org/</a>   |
| CDP - Supply Chain Membership                 | <a href="https://www.cdp.net/en/supply-chain">https://www.cdp.net/en/supply-chain</a>   |
| SASB Reporting Standard                       | <a href="https://www.sasb.org/">https://www.sasb.org/</a>   |
| TCFD Reporting Standard                       | <a href="https://www.fsb-tcfid.org/">https://www.fsb-tcfid.org/</a>   |
| Reverse Resources                             | <a href="https://reverseresources.net/">https://reverseresources.net/</a>   |
| Climate and Environmental Change (atingi.org) | <a href="https://learn.atingi.org/climate-and-environmental-change/">https://learn.atingi.org/climate-and-environmental-change/</a>   |

|  |   |
|--|---|
| FAIS by WWF (available in Chinese only)                  | <a href="http://www.fais.cn/">http://www.fais.cn/</a>   |
| Bluwin Academy (e-learning)                              | <a href="https://bluwin.talentlms.com/index">https://bluwin.talentlms.com/index</a>   |
| ZDHC Implementation Hub Resource Efficiency Module (REM) | <a href="https://www.roadmaptozero.com/post/rem-announcement?locale=en">https://www.roadmaptozero.com/post/rem-announcement?locale=en</a> |
| Clean by Design by Aii                                   | <a href="https://apparelimpact.org/what-is-cbd/">https://apparelimpact.org/what-is-cbd/</a>   |

# APPENDIX

## Scope 1-3 emissions details

| Scope 1  |   | Scope 2   |
|--|---|---|
| Emissions for a manufacturer might include:      | <ul style="list-style-type: none"> <li>Natural gas or other fuels used for heating stores, offices, or warehouses that are owned or operated directly</li> <li>Natural gas, coal, oil, or biofuels used for generators, heat-intensive processes, or boilers</li> <li>Fugitive process emissions</li> <li>Fuel used for owned or operated vehicles</li> <li>Refrigerant leakage</li> </ul>  | <ul style="list-style-type: none"> <li>Grid electricity for heating, lighting or cooling in retail, offices, or warehouses</li> <li>Grid electricity used for manufacturing processes</li> <li>District heating or cooling</li> <li>Purchased and consumed steam</li> </ul>                                       |
| Tools and data sources to measure these impacts: | <ul style="list-style-type: none"> <li>Information on the size of office, retail, and warehouse space (in square meters or square feet)</li> <li>Actual fuel use data or purchase records (invoices) for office, retail, warehouses, and factories</li> <li>Actual fuel use data or purchase records from vehicle fleet managers or users</li> <li>Actual refrigerant losses data or modelled estimates</li> <li>Emissions factors</li> </ul> | <ul style="list-style-type: none"> <li>Actual or estimated meter readings or invoices from electricity providers</li> <li>Actual or estimated usage or invoices from steam providers</li> <li>Renewable energy contractual agreements, energy attribute certificates, etc .</li> <li>Emissions factors</li> </ul> |

| Scope 3 Categories   | Description   |
|--|---|
| 1. Purchased goods and service                                       | Extraction, production, and transportation of goods and services purchased by a company   |
| 2. Capital goods   | Extraction, production, and transportation of capital goods   |
| 3. Fuel and energy-related activities (not included in scope 1 or 2) | Extraction, production, and transportation of fuels and energy purchased or acquired by the reporting company in the reporting year, which have not been included in scope 1 or scope 2   |
| 4. Upstream transportation and distribution                          | Transportation and distribution of products purchased by the reporting company in the reporting year between a company's tier 1 suppliers and its own operations (in vehicles and facilities not owned or controlled by the reporting company). Transportation and distribution services purchased by the reporting company in the reporting year, including inbound logistics, outbound logistics (e.g., of sold products), and transportation and distribution between a company's own facilities (in vehicles and facilities not owned or controlled by the reporting company) |
| 5. Waste generated in operations                                     | Disposal and treatment of waste from the reporting company's operation.   |
| 6. Business travel   | Transportation of employees for business-related activities (in vehicles not owned or operated by the reporting company).   |
| 7. Employee commuting  | Transportation of employees from home to work (in vehicles not owned or operated by the reporting company).   |
| 8. Upstream leased assets  | Operation of assets leased by the reporting company (lessee).   |
| 10. Processing of sold products                                      | Emissions of processing intermediate products by downstream companies.  |
| 9. Downstream transportation and distribution                        | Transportation and distribution of products sold by the reporting company in the reporting year between the reporting company's operations and the end consumer (if not paid for by the reporting company), including retail and storage (in vehicles and facilities not owned or controlled by the reporting company).   |
| 11. Use of sold products   | Emissions of processing intermediate products by downstream companies.  |
| 12. End-of-life treatment of sold products                           | Waste disposal and treatment of products.   |
| 13. Downstream leased assets   | Emissions of assets owned by the company but leased to another entity.  |
| 14. Franchises   | Emissions of franchises.  |
| 15. Investments  | Emissions associated with investments.  |