

---

# Annual Report 2019

---

# Contents

Executive Director's Letter	3
Key Highlights 2019	4
Roadmap to Zero Updates	5
ZDHC Contributor Growth	6
Highlights from the Focus Areas	
Input	8
Process	12
Output	14
ZDHC Gateway Highlights	
Chemical Module	18
Wastewater Module	21
ZDHC Academy Highlights	24
Regional Highlights	
Southern Europe	26
South Asia	28
East Asia	30
Partnerships and Collaborations	33
Implementation HUB	36

# Executive Director's Letter

Each year brings an exciting new milestone for ZDHC and 2019 brought us one of our biggest yet. This was the year our first impact report launched. It's when we celebrated how far we have come.

The impact report highlights many achievements to be proud of. Chief amongst these is the paradigm shift we've created in the industry. There's a new emphasis on managing chemical inputs. That's a massive breakthrough, one which puts the industry on the right track. Our guidelines, platforms and solutions support that move towards safer inputs. Over the past year, they were built upon as part of our continuous improvement programmes.

Having shifted gear from a brand-driven to a multi-stakeholder initiative, we have continued to evolve into a strong, fast-growing community. The ZDHC Community now comprises over 150 brands, manufacturers, formulators and solution providers. It's scaling up, as more stakeholders commit to implementing our guidelines, platforms and solutions.

Of course, the journey doesn't end there. It's crucial to drive safer chemistry deeper into the apparel and footwear supply chain. We must scale our efforts, bring our message to neighbouring supply chains, and educate everyone on sustainable chemical management.

After years of building a solid foundation for change, the impact of our work is becoming exponential. Our Roadmap to Zero Programme is gathering momentum around the world. With a clear vision and a steady hand we will ensure this continues. Looking at all the activity and positive things happening in ZDHC, I can already see there will be more to celebrate in the years to come.



**Frank Michel**  
Executive Director

# Key Highlights 2019

<b>JANUARY</b> <ul style="list-style-type: none"> <li>ZDHC MRSL Update Principles and Procedures (PnP) Document launched</li> <li>New Wastewater Management Training Course added to ZDHC Academy</li> </ul>	<b>FEBRUARY</b> <ul style="list-style-type: none"> <li>ZDHC Regional Conference (South Asia) hosted in Mumbai, India</li> <li>Co-hosted SAC &amp; ZDHC Manufacturer Forum held in Mexico City, Mexico</li> </ul>
<b>MARCH</b> <ul style="list-style-type: none"> <li>Meeting in Lishui, China for the 2019 Implementation Pilot of a DMFa phase out in synthetic leather/coated fabrics</li> <li>Interim Wastewater Guidance for Zero Liquid Discharge (ZLD) Facilities released</li> <li>Three new ZDHC Accredited Training Providers approved and onboarded</li> </ul>	<b>APRIL</b> <ul style="list-style-type: none"> <li>ZDHC partners with Kingpins show on ZDHC centric required exhibitor criteria</li> </ul>
	<b>MAY</b> <ul style="list-style-type: none"> <li>ZDHC Wastewater Laboratory Sampling and Analysis Plan (SAP) Version 1.0 launched</li> </ul>
<b>JUNE</b> <ul style="list-style-type: none"> <li>Co-hosted SAC &amp; ZDHC Manufacturer Forum in Barcelona, Spain</li> <li>ZDHC Programme and ZDHC Implementation Seminar held in Fukui, Japan</li> <li>ZDHC Contributors now total 150</li> </ul>	
<b>JULY</b> <ul style="list-style-type: none"> <li>ZDHC Wastewater Guidelines Version 1.1 released</li> <li>An 'Understanding the ZDHC Programme' Seminar runs in Coimbatore, India</li> </ul>	<b>AUGUST</b> <ul style="list-style-type: none"> <li>ZDHC Wastewater and Sludge Laboratory Sampling and Analysis Plan (SAP) Version 1.1 and ZDHC Gateway Electronic Data Reporting (EDR) released</li> </ul>
	<b>NOVEMBER</b> <ul style="list-style-type: none"> <li>ZDHC 2019 Annual Meeting is held in Amsterdam, the Netherlands</li> <li>First ZDHC Impact Report launched</li> </ul>
<b>DECEMBER</b> <ul style="list-style-type: none"> <li>ZDHC MRSL Version 2.0 launched</li> <li>ZDHC MRSL Conformance Guidance Version 1.1 launched</li> <li>2019 ZDHC Tool User Conference in Shanghai, China</li> <li>2019 ZDHC Conference in Mumbai, India</li> <li>ZDHC Programme and ZDHC Implementation Seminars held in Seoul, Korea; Amata Industrial Park, Vietnam; Ho Chi Minh City, Vietnam and Taipei, Taiwan</li> </ul>	

# Roadmap to Zero Updates

ZDHC has evolved and its success to date was outlined in the very first ZDHC Impact Report launched in November 2019. To build for a future beyond 2020, we rebranded to 'Roadmap to Zero' as a way of differentiating the parts of the ZDHC ecosystem including a dedicated website and a new logo.

A key win has been the clear shift in industry focus. Managing input chemistry matters more than ever and ZDHC's guidelines, platforms and solutions make it easier to move towards phasing out hazardous chemicals. The groundwork is done and is already producing results. Consecutive wastewater testing has shown that on average, 98% of facilities using ZDHC's solutions meet ZDHC MRSL requirements, or have no detections for analytes that are listed as hazardous.

The next decade will see a big push to drive sustainable chemistry deeper into the value chain and to engage neighbouring supply chains. We will also enhance scale by getting the industry to converge around the ZDHC MRSL. By 2022, initiatives and brand programmes will be converged. Local representation will also increase in production countries. By 2025, ZDHC's presence and infrastructure will grow within Europe, Africa, Asia and the Americas.

Investments in education and training will progress. So will efforts to make good chemical management knowledge publicly available and to grow consumer awareness of our work. Our vision of turning best practice into normal practice will help to reinvent the industry. By 2030, we foresee a new role for ZDHC, one where we safeguard a 'new normal' - a value chain free from hazardous chemicals.



# ZDHC Contributor Growth

In 2019, ZDHC welcomed the following organisations:

## Signatory Brands



## Value Chain Affiliates

### Chemical Industry



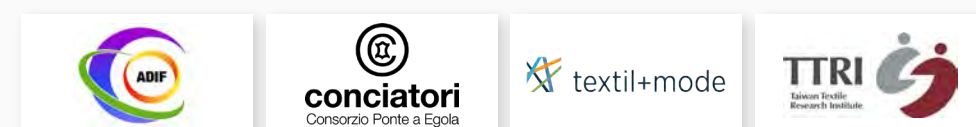
### Textile Industry



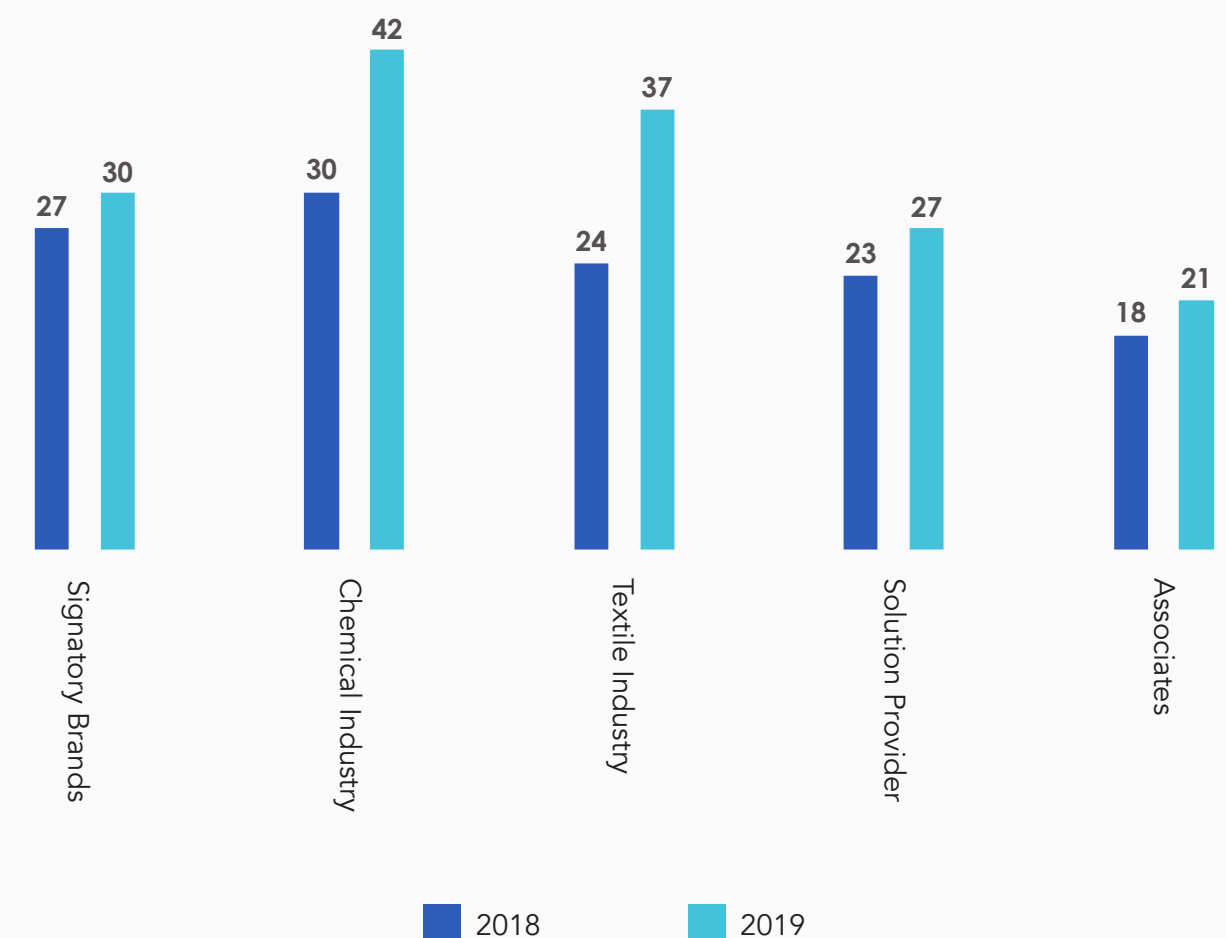
### Solution Provider



### Associates



## Contributor Growth



# Highlights from the Input Focus Area



## Overview

Controlling chemicals used in production processes to restrict hazardous chemicals from being used in manufacturing is a proactive approach towards safer products, cleaner water and fresher air. The Input Focus Area is where ZDHC guidelines, platforms and solutions are created to manage those chemical inputs. This is a better approach than trying to eliminate those chemicals from water, air or products after their use. Those guidelines, platforms and solutions are the cornerstone of the Roadmap to Zero Programme.

## Roadmap to Zero core solutions

### ZDHC Manufacturing Restricted Substances List (ZDHC MRSL)

The intention of the ZDHC MRSL is to control chemical inputs in the production process and to restrict hazardous substances from intentional use in textile and leather manufacturing.

✓ Version 2.0 of the ZDHC MRSL was released in December 2019.

### ZDHC MRSL Update Principles and Procedures Document

As the ZDHC MRSL is a living document, it is updated as needed to expand the materials and processes covered and to add substances that should be phased out of the value chain. This Principles and Procedures document contains and explains the process used to update the ZDHC MRSL. It helps to ensure that the update process is transparent, inclusive and efficient whilst keeping in mind that updates should reduce hazard and impact based on the best available information.

✓ Version 1.0 of the Principles and Procedures Document was released in January 2019.

### ZDHC MRSL Conformance Guidance

This document outlines the requirements for indicating ZDHC MRSL conformance. It shows how confident we are that a chemical formulation would always conform. That's useful information for chemical formulators wishing to make safer products. Because ZDHC Accepted Certification Standards are used to indicate conformance, this document also outlines how certification standards can earn ZDHC acceptance.

✓ Version 1.1 of the ZDHC MRSL Conformance Guidance was released in December 2019.

### ZDHC Gateway - Chemical Module

A database of chemical formulations for the apparel and footwear industry that are verified by independent third party certifiers of meeting the ZDHC MRSL. It helps facilities to evaluate the ZDHC MRSL conformance level of chemical formulations used in production processes and find safer alternatives.

### ZDHC ChemCheck

ZDHC ChemCheck is a product passport of chemical formulations that shows that the formulation has been verified by a third party of meeting ZDHC MRSL conformance. Chemical formulators should share this report with their customers.

### ZDHC InCheck

ZDHC InCheck is an easy-to-read performance report that shows which of a facilities chemical inventory have been verified to meet ZDHC MRSL conformance. It can be shared with all customers and is accepted by leading brands.

### ZDHC MRSL Submission Platform

A platform that facilitates two-way communication on the ZDHC MRSL. It can be used to suggest chemical substances that should be added to the ZDHC MRSL, or to suggest a change to the limits outlined on it. Proposals can be submitted by anyone including but not limited to, individual citizens, chemical formulators, dye-houses, NGO representing civil societies, professional bodies, ZDHC Contributors or academic organisations. The submission criteria





address several critical areas including but not limited to, relevance to the apparel, textiles and footwear industry, estimates of amounts used in specific scenarios, or in total across the industry, exposure and discharge scenarios and the presence of ‘feasible/viable’ substitutes.

 The platform was beta-tested in 2019.

## Achievements in 2019

### ZDHC MRSL V1.1 Accepted Conformance Bodies

In 2019, the qualifications of 62 organisations, comprising both testing laboratories and certification systems, were reviewed and accepted by ZDHC. This was done in accordance with the process outlined in the ZDHC MRSL Conformance Guidance. That process seeks to ensure that a certification system has the necessary quality systems in place to check formulations for ZDHC MRSL conformance.

In total, the following approvals were issued for individual global testing and certifying bodies:

LEVEL 1	LEVEL 2	LEVEL 3
57	1	4








## Coming up

Following the release of the ZDHC MRSL V2.0 in December 2019, the approval process will continue according to the conformance level scheme. ZDHC MRSL V2.0 includes additional substances that must be regulated. With this in mind, a transition period of 12 months will be issued for chemical formulators to comply with, and subsequently for accepted certification bodies to certify against the ZDHC MRSL V2.0.

The approval process will be enhanced for testing laboratories. An online real-time video assessment will be included in order to check a testing laboratory’s physical equipment and its capabilities. This will ensure the conformance programme’s high quality is maintained.

## Next steps

-  Public release of the ZDHC MRSL Submission Platform.
-  Support activities for the ZDHC MRSL V2.0 implementation, including webinars.
-  Review of ZDHC MRSL Update Principles and Procedures (PnP) Document after initial use.
-  Review of existing ZDHC MRSL Accepted Certification Standards against ZDHC MRSL V2.0.
-  Start review process for substances submitted via the ZDHC MRSL Submission Platform.

# Highlights from the Process Focus Area



## Overview

Process is that crucial link between chemical inputs and outputs. Safer inputs make a big difference, as long as they are used the right way. That's key to reducing their environmental impact. When good procedures and best practice are in place, outputs become cleaner, and the process works. The Process Focus Area encompasses two major elements. It offers guidelines and solutions to promote good chemical management practices and it supports the harmonised implementation of ZDHC guidelines, platforms and solutions in the value chain.

This work includes developing and maintaining guidelines such as the ZDHC Chemical Management System (CMS) Guidance, which helps suppliers to better manage chemicals in their day-to-day operations. ZDHC also strives for alignment with existing industry tools including but is not limited to, the Chemical Management Module of the Sustainable Apparel Coalition's (SAC) Higg Facilities Environmental Module (FEM), which aims to assess supply chain practices for chemical management.

## Coming up

An update to the current ZDHC Chemical Management System Guidance and its division into two parts:

1. ZDHC CMS Framework for brands and suppliers, intended to provide the minimum expected requirements for a chemical management system.
2. ZDHC Technical Industry Guide, which will be a guide for suppliers on how to implement an effective chemical management system.



## Fibres in the Process Focus Area

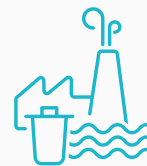
Fibres are a building block and main constituent of the garment industry. They represent an important part of the value chain which cannot be ignored. In 2019 ZDHC began to move deeper into the supply chain to fibres production focusing first on man-made cellulosic fibres (MMCF). ZDHC began work to develop the ZDHC MMCF Responsible Fibre Production Guidelines. This document will address best practices and chemical recovery for production processes relating to viscose and modal staple fibres.

## Next steps

- > Launch the ZDHC MMCF Responsible Fibre Production Guidelines.
- > Begin work to add viscose and modal filament yarn and lyocell to the ZDHC MMCF Responsible Fibre Production Guidelines.



# Highlights from the Output Focus Area



## Overview

This is where we can assess and evaluate the impacts of our work. We find out if outputs are really cleaner by measuring indicators such as wastewater quality, sludge quality, or air emissions. Outputs help to validate the implementation work that's being done at both the input and process levels of chemical management.

## The core solutions in this area

### ZDHC Wastewater Guidelines

These guidelines standardise wastewater testing requirements in the global apparel, textile and footwear supply chain. They define the standard for wastewater and sludge quality, which goes beyond regulatory compliance. Conventional parameters are included, such as pH, BOD and COD, as are the ZDHC MRSL parameters.

✓ Version 1.1 of the ZDHC Wastewater Guidelines was released in July 2019.

### Sampling and Analysis Plan (SAP)

This document is a key support for implementing the ZDHC Wastewater Guidelines. It provides ZDHC Accepted Laboratories with a set of requirements to guide them as they sample and test to determine the concentration of parameters in wastewater and sludge. It helps to achieve the integrity and comparability of wastewater and sludge test data.

✓ Version 1.1 of the SAP was released in August 2019.

### ZDHC Gateway - Wastewater Module

This is a global online platform for facilities to register and share their wastewater test data. The platform helps facilities to benchmark their conformance towards ZDHC's Wastewater Guidelines and share data with their customers.

### ZDHC ClearStream

It is an easy-to-read facility performance report of ZDHC wastewater conformance that is accepted by leading brands. It can be shared with all customers to avoid duplicative testing.

### ZDHC Wastewater Accepted Laboratories Programme

Our review process ensures we have the necessary insights on personnel, equipment and processes being used at laboratories that conduct wastewater testing. Accepted laboratories must, in addition to holding ISO 17025 certification, meet ZDHC's minimum acceptance criteria.

### Electronic Data Reporting System (EDR)

The EDR gives directives to ZDHC Accepted Laboratories on submitting test data to the ZDHC Gateway - Wastewater Module. It explains the standardised way in which data should be submitted to the platform. By showing these laboratories what data is expected, it increases the consistency and comparability of test data provided.

✓ Version 1.0 was released in August 2019.

## Achievements in 2019

✓ Nine laboratories were added to the ZDHC Accepted Laboratories Programme.

✓ Work continued throughout the year to draft the Air Emissions Guidelines.

## Next Steps

➤ The Air Emissions Guidelines Version 1.0 will be released in 2020.

➤ The Wastewater Guidelines will be updated and Version 2.0 released in 2020.

➤ A pilot on Wastewater Guidelines for PU Coated Fabric Mills will be launched.



## Fibres in the Output Focus Area

As fibres are an important part of the value chain, ZDHC started to develop interim solutions to address the management of outputs related to fibres manufacturing. Together with the participants of the man-made cellulosic fibres (MMCF) Multi-Stakeholder Roundtable, ZDHC began drafting the ZDHC MMCF Wastewater Interim Guidelines and ZDHC MMCF Air Emissions Interim Guidelines. These documents will define a single, unified guidance specific to outputs generated in the production of MMCF. They will also incorporate reporting at three different levels: foundational, progressive and aspirational.

## Achievements in 2019

- ✓ Conducted wastewater testing pilot to validate parameters and limit values for the ZDHC MMCF Wastewater Interim Guidelines.

## Next Steps

- > Launch ZDHC MMCF Interim Wastewater Guidelines
- > Launch ZDHC MMCF Interim Air Emissions Guidelines
- > Begin work to add the following to the ZDHC MMCF Wastewater Interim Guidelines and ZDHC MMCF Air Emissions Interim Guidelines:
  - viscose and modal filament yarn
  - lyocell
  - dissolving pulp for MMCF in vertically integrated facilities
- > Start to address microfibres released into the environment during the manufacturing stage, in collaboration with the Microfibres Consortium.



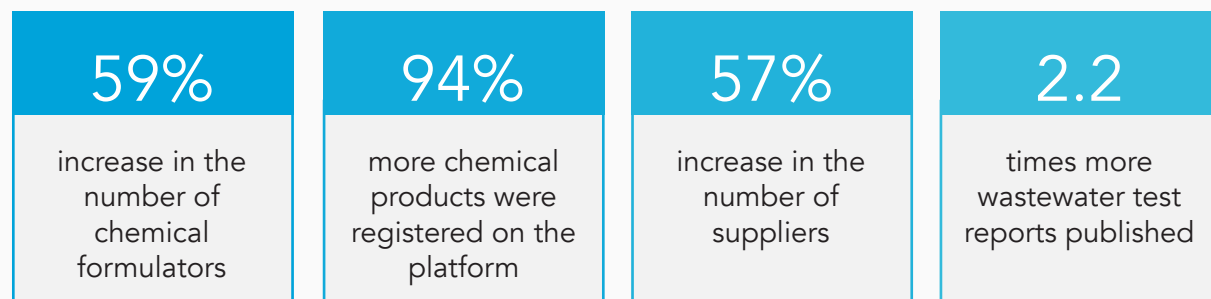


# ZDHC Gateway Highlights



## Numbers

In 2019, the ZDHC Gateway achieved tremendous growth in terms of engaged users, chemical products and wastewater test reports. Within one year:



# Chemical Module Achievements in 2019

## New pricing for chemical formulators - rewarding high performers (April 2019)

In April 2019, ZDHC Gateway - Chemical Module pricing was updated to reward formulators that invest in the production of safer chemistry. It is now free to publish Level 2 and Level 3 ZDHC MRSL conformant chemical products on the ZDHC Gateway, making it more attractive for formulators to register their top-performing chemical products.

## BVe3 delivered ZDHC InCheck Reports (August 2019)

Bureau Veritas became a third-party solution provider connected to the ZDHC Gateway, delivering InCheck reports to clients via the supplier software tool, BVe3.

## H&M positive list available on the ZDHC Gateway (August 2019)

H&M's chemical product preferred list became available to all suppliers via brand filters in the search section under "browse by brand".

## GCIRT companies join the ZDHC Gateway (September 2019)

After joining the ZDHC Foundation as Contributors, Global Chemical Industry Roundtable (GCIRT) signatory companies started uploading their chemical products (around 10,000) to the ZDHC Gateway - Chemical Module using the bluesign® bluefinder tool.

## Bluesign chemical product migration to the ZDHC Gateway (October 2019)

To populate the ZDHC Gateway with more ZDHC MRSL conformant chemical products, chemical formulators agreed to have their bluesign® certified chemical products migrated from bluesign® bluefinder directly to the ZDHC Gateway. In 2019, almost 130 chemical formulators agreed to this migration for almost 12,000 bluesign® certified chemical products. The process of chemical product migration occurs on a monthly basis.

## Updates to the ZDHC Gateway to accommodate ZDHC MRSL V2.0 (December 2019)

The platform was updated to accommodate new requirements arising from the introduction of the ZDHC MRSL V2.0. Updates were made to many areas including the transition period, chemical product visibility, and Level 0 chemical products phase out.

## Next Steps

### Mobile Companion App

To bring greater levels of accessibility and mobility to the ZDHC Gateway - Chemical Module, a native smartphone mobile application will be launched in early 2020. This will maximise the accessibility and usability of the ZDHC Gateway Platform for its user base. Users can browse and validate chemical information on portable devices, while moving around the factory floor. The application will be available for iOS and Android devices.

### Baseline ZDHC InCheck report

A verified Baseline InCheck report can be created once a year. It summarises the ZDHC MRSL conformance of an input chemical inventory, as validated by an approved third- or second- party verifier (following an on-site visit to a supplier's facility). The report also gives suppliers a baseline to use when comparing against further Performance InCheck reports. This makes it possible to track a supplier's progress when it comes to improving their use of ZDHC MRSL conformant chemical products.

### Updated ZDHC InCheck Guidelines

In the course of introducing the Baseline InCheck report, ZDHC is working on updates to the overall InCheck reports (Baseline InCheck and Performance InCheck). These updates will bring changes to various elements on the platform and their respective reports. Such changes will be seen in areas such as; upload of inventory type, frequency of a chemical inventory upload, or performance ranking for suppliers' conformance (into foundational, progressive and aspirational levels). The same guidelines will be followed by approved third-party solution providers offering ZDHC InCheck reports.

### New chemical product upload process on the ZDHC Gateway

A new chemical product upload process will allow chemical formulators to connect the products they are uploading to multiple production or distribution sites. They will also be able to reflect the regional availability of a chemical product. This makes it easier for supplier facilities to find chemical products on the platform and thereby increase the inventory conformance reflected in their InCheck reports.

## Incorporation of "Inditex the List" on the ZDHC Gateway

Activity is underway to implement an Inditex CTW (Clear to Wear) rating on the ZDHC Gateway. Viewers of the Inditex preferred chemical products list will see an extended search screen, which displays an Inditex CTW (Clear to Wear) rating for each chemical product. The list will also appear as a certification body alongside other indicators of ZDHC MRSL conformance.

## Wastewater Module Achievements in 2019

### Suppliers to pay the annual reporting fee (June 2019)

To make the process of uploading wastewater data faster and more efficient, suppliers now have the option to pay the annual reporting fee themselves. The yearly fee of €190 can be paid directly via the ZDHC Gateway.

### Implementing the ZDHC Wastewater Guidelines V1.1

The platform has been updated to accommodate changes arising from the introduction of the ZDHC Wastewater Guidelines V1.1.

### Improving ClearStream Reports

Various improvements were made. These include but are not limited to, tracking the reasons why 'not analysed' analytes show up in wastewater reporting.

## Next Steps

### Launch of DETOX.Live

A new online map will be launched in 2020 to give all stakeholders an overview of progress with the Roadmap to Zero Programme. It will display the location of suppliers throughout the globe and provide insights on data uploaded to the ZDHC Gateway, such as verified and unverified wastewater data. Colour coded performance indicators will illustrate how well a facility is doing in terms of meeting ZDHC requirements. It will also be possible to tag a relationship between a supplier and brand via a 'handshake' functionality on the ZDHC Gateway.



## Launch of EDR (Electronic Data Reporting) V2.0 Template and Data Cleansing

With the launch of the Electronic Data Reporting Guidelines (EDR) Guidelines, ZDHC is introducing the Electronic Reporting Template V2.0. The template will incorporate a validation logic to improve the quality of reported data on the ZDHC Gateway. The new EDR process will include a data cleaning exercise for wastewater laboratories. As a result, the process by which data is uploaded onto the ZDHC Gateway will change and a data cleansing project will be implemented. ZDHC will guide laboratories in the process of re-uploading all data onto the ZDHC Gateway. The current data on the system will be replaced. The same data will be used as a replacement, but it will have been verified as conforming to the latest version of the EDR Guidelines. To help laboratories complete this exercise, ZDHC is providing webinars and training.

## Implementation of the ZDHC Wastewater Guidelines V2.0 on the ZDHC Gateway

The platform will be updated to accommodate changes to the ZDHC Wastewater Guidelines V2.0 (expected release in Q4 2020), which will also be reflected in the ClearStream report.

## Supplier profile updates

As an extension of the previous data integrity project, we are improving the completeness of supplier profiles. In addition to information on facility type, materials generated and processes, suppliers will be obliged to submit any requested information related to their wastewater discharge, in accordance with the ZDHC Wastewater Guidelines. It will be mandatory for suppliers who are already engaged to review their current suppliers and complete this task before entering the platform again. This project will contribute to more accurate data. It's a necessary step in defining the correct wastewater laboratory sampling requirements for suppliers using the ZDHC Gateway - Wastewater Module.

## Implementation of the Man-Made Cellulosic Fibres (MMCF) Guidelines

As the scope of the Roadmap to Zero Programme has extended to include the production of MMCF, the relevant guidelines will be released in 2020. We are preparing the platform to accommodate any related changes, which will also be reflected in the ClearStream report.

## Joint Module Achievements in 2019

<p><b>ZDHC Gateway Knowledge Base (January 2019)</b></p> <p>The connection of 'Help and Support' on the ZDHC Gateway to a wider knowledge base tool called Zendesk.</p>	<p><b>Data quality review and evaluation report (February 2019)</b></p> <p>A data quality review was conducted to identify the presence of manual errors in both ZDHC Gateway Modules and the existence of fake or duplicated registrations. This review was designed to provide extra assurance for ZDHC brands and suppliers. In Q2 2019, we initiated corrective actions and checks on a daily basis.</p>
<p><b>First ZDHC Gateway newsletter (July 2019)</b></p> <p>Users are updated on a monthly basis via the ZDHC Gateway Newsletter. Here we share information on the latest ZDHC Gateway numbers, updates and new or enhanced functionalities.</p>	

## Next Steps

### Third-party integration services

ZDHC is transitioning its InCheck functionality and making it available to a broader audience. Using a third-party delivery model or API (application programme interface) we have already begun to accelerate the adoption of the ZDHC InCheck standard. Next steps will include creating other API connections. This will make it possible to connect to brands' systems and pull information on the suppliers they work with, such as facility details or wastewater data.

# ZDHC Academy Highlights



## Overview

The [ZDHC Academy](#) was established in late 2016. It is a platform for building awareness, knowledge and skills on sustainable chemical management and ZDHC solutions in textile, apparel, footwear and leather value chains. This globally recognised training platform offers high quality, certified training courses.

Within the ZDHC Academy, Accredited Training Providers (ATPs) organise and deliver certified training. In this way, ZDHC certified training is delivered to key industry stakeholders throughout the value chain, including brands, retailers, manufacturers and tanneries. The aim is to help everyone understand and adopt best practice chemical management. The ZDHC Academy is available industry wide, including ZDHC Contributors as well as non-ZDHC affiliated organisations. It offers open group training sessions and private training sessions upon request.

As of late 2019, four different training topics are available:

- ZDHC Chemical Management Training (2-days)
- Top 10 Issues of Chemical Management Training (1-day)
- ZDHC Chemical Management Training for Leather Tanneries (2-days)
- ZDHC Wastewater Management Training (1-day)

The ZDHC Academy in Numbers:

127	18	1,062	15
Training sessions held	Different countries where trainings were held	Total training participants	ZDHC Accredited Training Providers

## Achievements in 2019

- ✓ Two new training topics were launched: ZDHC Wastewater Management Training and Chemical Management Training for Leather Tanneries.
- ✓ In 2019 alone 1,062 individuals participated in a training session. By comparison to nearly 3,000 individuals in total since the launch of the ZDHC Academy this represents a significant increase in 2019.
- ✓ Eight new organisations were accredited at ATPs to organise and deliver training. The new ATPs are focussed on regional activities in Italy, China, Turkey and South America. Many of them also have expertise in leather and wastewater management.
- ✓ Along with the new ATPs, an additional pool of individual trainers were accredited, bringing the total number of expert trainers to 115.
- ✓ At the end of 2019, together with Centrocot, ZDHC organised a 40-hour training course for technical college students in Italy's Lombardy region.\*
- ✓ On 19 occasions, brands and factories used the option to set up private training sessions at their facilities.
- ✓ For the first time, one of our ATPs hosted a private training session in the United States of America.

## Next Steps

- Further broaden and align Chemical Management training activities with multi-stakeholder initiatives.
- Scope regional and global textile industry projects where training is a substantial part of the setup. With the aim of integrating the ZDHC Academy into those projects.
- Launch brand and retailer specific training.
- Evaluate educational projects at universities. This is being done to set up a future process plan to scale education for the purpose of bringing ZDHC trained people into the industry.
- Develop a 2020 onward ZDHC Academy strategy to enhance and scale education.
- Co-develop with ATPs a follow-up training for ZDHC Wastewater Management.

\*For more information, see Regional Highlights - Italy.

## Regional Highlights - Southern Europe

A series of workshops and initiatives, spanning different regions of Italy, helped to further engage chemical companies with the ZDHC Gateway. There was also a strong drive to create awareness in Southern Europe through participation in various local events. ZDHC attended, facilitated and spoke at various events throughout the country. Academic outreach was strengthened as Chemical Management Training was delivered to a group of students.

## Achievements in 2019

### Awareness workshops on the ZDHC MRSL and ZDHC Gateway

Various Italian textile and leather districts hosted several ZDHC workshops, seminars and round tables. The most important clusters for this activity were in Como, Biella, Prato and Varese for the textile industry and for the leather industry, Milan area, Tuscany, Veneto and the Naples area. The aim of these activities was to facilitate adoption of ZDHC's guidelines, platforms and solutions and to allow textile and leather facilities and chemical formulators to register in the ZDHC Gateway and use the relevant solutions. One of the major achievements was the participation of local chemical formulators in the ZDHC Gateway. A proactive collaboration was undertaken between some local ZDHC Accepted Laboratories and chemical formulators. This created information sharing, which supports the proper verification of chemicals and implementation of ZDHC MRSL conformance levels in the ZDHC Gateway.

### Academy course for students

In late 2019 the ZDHC Academy, together with an Italian Training Provider, organised a course for students. This was co-financed by the UE Social Fund and Lombardy Region. Ten students, aged between 22 and 28 and all with a technical degree, participated in a 40 hour long course on ZDHC's Chemical Management training. All students attended the exam and completed it successfully. This is the first time ZDHC has addressed students with ZDHC Chemical Management training.



## ZDHC participated in important stakeholder events

As part of a drive to create awareness in Southern Europe, ZDHC participated in several stakeholder events.

### Chemical Management Luxury Brands Event in Milan (February 2019)



The ZDHC team explained the ZDHC approach to sustainable chemical management.

### Prossimapelle Event in Tuscany (May 2019)



The ZDHC MRSL and ZDHC Wastewater Guidelines were discussed with leather experts, tanneries and entrepreneurs from chemical companies.

### Oekotex Standard 100 Awards in Busto Arsizio (November 2019)



ZDHC facilitated the Oekotex event, moderating a panel discussion on sustainable chemical management. This enhanced ZDHC's role in the alignment of various existing programmes.



Key ZDHC Programme activities presented to brands and suppliers.



## Regional Highlights - South Asia

During the year, the South Asia office saw many achievements at both domestic and international level. The inaugural Regional Conference in Mumbai attracted industry stakeholders from India, Bangladesh and Sri Lanka. Another successful conference was also held to engage India's domestic apparel industry. A series of workshops and seminars were also delivered, which helped to drive awareness, and boost training and participation. In addition, implementation support was provided to various textile and chemical companies, both on-site and offline.

### Achievements in 2019

#### The First Regional Conference in Mumbai (February 2019)

ZDHC hosted this conference with the theme '*Accelerating Sustainable Chemical Management - Connecting the Dots*'. Stakeholders from across the textile value chain participated, including ZDHC Brands, manufacturers, the chemical industry and solution providers from India, Bangladesh and Sri Lanka.

ZDHC presented its global vision and approach as well as the regional strategy. A keynote address was given by Punit Lalbhai, Executive Director at India's premier textile conglomerate Arvind Ltd. Also Dr. Prasad Modak, a globally recognised environmental expert, gave a talk on 'Chemicals and Circularity'.



The conference had three sessions focused on 'Integrating', 'Implementation' and 'Innovations' in sustainable chemical management. The conference ended with a unique bespoke dance show, on the theme of 'chemical impacts of textile production'.

#### Awareness workshops on the ZDHC MRSL and ZDHC Gateway

Several workshops and seminars were conducted in India and Bangladesh at specific textile and chemical manufacturing centres such as Ahmedabad, Delhi, Bangalore, Tiruppur, Surat, Dhaka and Coimbatore. The workshops and seminars were designed to create awareness and train supplier facilities and chemical formulators on using the ZDHC Gateway. They proved very useful in terms of acquainting these stakeholders and getting them to participate in the ZDHC Gateway.

#### Engaging the domestic apparel industry with ZDHC



Almost 60% of production in the Indian textile industry serves the domestic market. At the same time, Indian apparel and retail brands are expanding their reach. To engage the domestic industry with ZDHC, the South Asia region initiated a conference themed '*Anchoring the ZDHC Programme in the Domestic Apparel*

*Industry*'. At this conference, leading Indian brands and textile companies discussed how they can align with the ZDHC Programme and leverage sustainability to differentiate themselves in the domestic market.

#### Consultation projects for ZDHC implementation

At the specific request of various textile and chemical companies, ZDHC South Asia Region conducted implementation projects to improve chemical management systems. As part of these projects, site visits were done to develop a baseline assessment and a corrective action plan, for which the South Asia team provided off-line support.

## Regional Highlights - East Asia

Various outreach initiatives produced tangible results in 2019, both in China and in other countries such as South Korea, Japan and Vietnam. The DMFa phase out project had a positive impact throughout the industry in China, from brand level up to government level. We have seen increased convergence around ZDHC guidelines, platforms and solutions, in particular from the China Light Industry Council. The first ZDHC Tool User Conference in Shanghai attracted 400 delegates from every sector of the industry. Running a series of webinars and attending various events also helped to drive awareness of and participation in ZDHC's Roadmap to Zero Programme.

### Achievements in 2019

Adoption and industry convergence around ZDHC guidelines, platforms and solutions

ZDHC MRSL was adopted by the China Light Industry Council, as group standard T/CNLIC 0002-2019.

Awareness webinars, seminars on the ZDHC MRSL, ZDHC Wastewater Guidelines and ZDHC Gateway

Webinars and seminars were conducted across the East Asia region, in China, Japan, South Korea and Vietnam. They were designed to create awareness and train supplier facilities and chemical formulators on the updated ZDHC MRSL, the ZDHC Wastewater Guidelines and how to use the ZDHC Gateway. These events support the implementation of ZDHC guidelines, platforms and solutions in the region and drive increased participation in the ZDHC Gateway.



Innovation project in China (industry pilot for a DMFa phase out in synthetic leather/coated fabrics)

DMFa is a hazardous solvent. It has been included on the ZDHC MRSL Candidate List to call for the development of safer alternatives. ZDHC has been working with the Chinese Industry Association to tackle the issue of substituting DMFa-based polyurethane with DMFa-free polyurethane. This work was done via a DMFa phase out pilot, which meant organising a joint effort between the entire value chain and multiple stakeholders. Parties involved included the industry association, government, brands, synthetic leather/coated fabrics manufacturers, chemical formulators and academia experts.

Throughout 2019, the pilot resulted in many positive impacts, including:

- Positive influence on China's policy-setting with regard to DMFa
- Standard setting within the industry group itself has been influenced positively
- Chemical formulators are encouraged to increase investment and technology development.
- Increase of interest from the synthetic leather/coated fabric companies to switch to DMFa free processing
- More brands opting to join the DMFa phase out effort





## First ZDHC Tool User Conference hosted in Shanghai (December 2019)

In December, the 2019 ZDHC Tool User Conference was held in Shanghai. For the first time, 400 delegate ZDHC tool users were brought together, in particular ZDHC Gateway users. Industries represented at the event included; textiles, leather, synthetic leather/coated fabrics, apparel and footwear, the chemical industry, brands and third-party solution providers.

At this conference the downstream and upstream value chain sat together to discuss challenges, share best practices and seek solutions. They also sought to keep momentum towards the goal of advancing towards zero discharge of hazardous chemicals.



## ZDHC booth was in action at various exhibitions



InterDye  
(April 2019)



InterTextile  
(September 2019)



All China Leather Exhibition  
(September 2019)

## Partnerships and Collaborations

### German Partnership for Sustainable Textiles

Since 2017, ZDHC has been a member of the German Partnership for Sustainable Textiles, a multi-stakeholder initiative with about 120 members (Partnership). The main focus of the cooperation between the Partnership and ZDHC is the development and implementation of sustainable chemical management practices. For this purpose, the Partnership has adopted the ZDHC MRSL as its basis MRSL and ZDHC Wastewater Guidelines foundational level as the minimum wastewater quality criteria. In 2019, both parties worked together on the long-term implementation of the Partnership's basic and advanced training concepts in chemical management. ZDHC also contributed its expertise to the Partnership's man-made cellulosic fibres (MMCF) expert group.

### CanopyStyle

This initiative was part of a 2018 MMCF multi-stakeholder roundtable. CanopyStyle works towards eliminating the use of the world's ancient and endangered forests in MMCF production. The partnership was formalised in July 2019. Its focus is to scale up collaborative work on a journey to reduce the negative impacts of MMCF production. It is expected to deliver tools and publications that will support CanopyStyle and ZDHC's dove-tailed efforts, and the complementary progress made by both parties.

### The Microfibre Consortium

ZDHC and the Microfibre Consortium are building a partnership to pursue an end goal to eliminate the release of microfibres into the environment during the manufacturing stage. As part of this, they will jointly develop solutions for the industry. The partnership is expected to be formalised in Q1 2020.



## KingPins

In 2019, ZDHC and Kingpins took their first steps in an official collaboration.

Kingpins is the world's largest denim event. It hosts denim mills, formulators and industry innovation partners as part of two-day exhibitions held in the USA, Asia and Europe. In conjunction with Kingpins Transformers, a series of educational conferences (Transformers, for members of the denim industry & Transformers ED for Academic Organisations) were developed. These summits are dedicated to making the jeans industry more environmentally viable, innovative and socially responsible. Kingpins has taken a leading role in improving chemical management within the denim industry.

In 2019, ZDHC and Kingpins jointly opened the Kingpins exhibition, and outlined the ZDHC related requirements Kingpins had set for exhibitors. All mills taking part in Kingpins are required to participate in ZDHC Academy training. They are also required to register and work on the ZDHC Gateway. Both ZDHC and Kingpins track the activity of the mills. A field trip to Italy was undertaken to discuss requirements, learn from a mill actively engaged with ZDHC, and create a clear path for both organisations to move forward.

In 2020, the first set of ZDHC Academy and Kingpins webinars will be hosted by the ZDHC Academy. They will inform mills about the programme and respond to any questions they may have.

## IDH 'Race to the Top' programme in Vietnam

As part of driving improvements to chemical management in Vietnam's textile industry, ZDHC supported the IDH 'Race to the Top' programme. It also supported the Vietnamese Ministry of Resources and Environment to set up a guidance document called 'Sound Management of Chemicals towards Reducing Harmful Chemicals in the Textile and Garment Industry' launched in Autumn of 2019 by the Ministry and IDH. In 2020, ZDHC will work on the next steps for collaborations, including the one with IDH in Vietnam and those in other regions.

## SAICM (Strategic Approach of International Chemicals Management)

SAICM (The Strategic Approach to International Chemicals Management) is a global policy framework to foster the sound management of chemicals and waste. The SAICM Secretariat is hosted by the United Nations Environment Programme. ZDHC Foundation was invited by SAICM as one of industry representatives in the third meeting of the intersessional process considering the Strategic Approach and sound management of chemicals and waste beyond 2020 in Bangkok in October 2019.



The purpose of invitation to ZDHC by SAICM was to provide strategic consultation and contributing ZDHC experience of Roadmap to Zero on sound management of chemicals in textile, apparel and footwear sectors. During the plenary opening session, ZDHC Foundation was also invited for an opening statement about ZDHC, its activities and its global contribution and role to the textile industry on sound management of chemicals and presented this as a prototype, possibly applicable to other industry sectors. ZDHC participated in various working groups and was invited as a key player on the role of private industry standards in sound management of chemicals and waste.

## UNEP on Green and Sustainable Chemistry

In 2019, UNEA (United National Environmental Assembly) has requested UNEP to create a global Guidance Manual on Green and Sustainable Chemistry by synthesizing UNEP's analysis of best practices in sustainable chemistry in consultation with relevant stakeholders. This is within the work of a holistic approach in the long term, taking into account both the importance of the sound management of chemicals and the potential benefits of chemicals for sustainable development.

Among other stakeholders, ZDHC was invited in the UNEP Expert Working Group for guiding and supporting to draft the UNEP Guidance Manual on Green and Sustainable Chemistry. The first Expert Working group meeting was held in the UNEP office in Geneva in December 2019.

# Highlights from the Implementation HUB



## Overview

The Implementation HUB was established to drive the large-scale uptake of chemical and environmental management best practices across the entire industry, globally.

It offers a platform to find and match with approved experts and consultants for support on implementing chemical management strategies and driving continuous improvement. The Implementation HUB also offers a scaling environment for safer chemistry innovations and enables large-scale implementation progress.

## Achievements in 2019

### ZDHC Brands to Zero Programme Support (formerly Signatory Brand Leader Programme)

In 2019, the Implementation HUB supported ZDHC in launching and running the 2019 Brands to Zero Programme. Following assessment completion, the Implementation HUB conducted the Roadmap development meetings with the Brands.

Based on the assessment report, the focus was on supporting Brands to improve their ZDHC implementation strategies and activities. At the same time, the Implementation HUB learned more about individual Brand approaches, how ZDHC guidelines, platforms and solutions are implemented, and relatedly the benefits and short-comings experienced by users. These insights provided valuable feedback for the revision of the Brands to Zero Programme. Based on the learnings from 2019, the Implementation HUB restructured and revised the KPI system and drafted the 2020 Brands to Zero Assessment Guidance.

## Supplier to Zero Programme - Concept Design

In 2019, the Implementation HUB began work on the Supplier to Zero Programme (formerly Facility Leader Programme). In the early stages of the project the focus was on establishing a fit with ZDHC guidelines, platforms and solutions, in particular the Chemical Management System Guidance (CMS). Therefore, the Implementation HUB was also involved in the internal review group for the CMS Industry Guide.

The Supplier to Zero Programme will consist of three levels:

1. Foundational Level which will involve self-assessment and self-learning on the CMS.
2. Progressive Level which will include a desktop review on a supplier for the CMS implementation.
3. Aspirational Level which will identify suppliers that are leading the way with ZDHC implementation and chemical management best practices.

With this project it is estimated that the Supplier to Zero Programme will be launched in three major release cycles, with the Foundational Level being launched in the second quarter of 2020.

### "Approved Solution & Solution Providers" and "Find Your Expert Platform" - Concept Design

The Implementation HUB and its work will be based on the trusted expertise of Approved Partners. As with the Accredited Training Providers (ATPs), established in the ZDHC Academy, trusted expertise and approved partnerships will be needed to support the meaningful implementation of ZDHC guidelines, platforms and solutions for the brands and manufacturers using them.

Therefore, the Implementation HUB will build a network of approved experts. These experts will set expectations for e.g. using the ZDHC Gateway to deliver InCheck related services. Aside from solution providers requiring technical connectivity, the Implementation HUB also aims to leverage the on-site expertise of approved experts for e.g. root cause analysis or improvements to effluent treatment plants. In 2019, the essential foundation for a holistic concept was developed.

## Public private partnership: sustainable chemical and waste management in Ethiopia's fashion industry

DOW Chemicals Europe GmbH and the German Development Agency (GIZ) partnered to form an equally funded public private partnership (PPP). This partnership aims for an improved and more widespread knowledge of sustainable chemical management in the Ethiopian textiles sector. The project, is based in Ethiopia, where the Ethiopian Government has adopted an ambitious five-year Growth and Transformation Plan (GTP II, 2015-2020). The textile industry has been indicated as the main vehicle for further economic growth and industrialisation. To diversify from agricultural products, there is a key and primary focus on industrial parks for production of leather and textile export goods.

In August 2019, ZDHC received a grant from DOW Chemicals Europe GmbH to implement the project on their behalf. The Implementation HUB implements the project on behalf of ZDHC. Another partner in the project is the Bahir Dar University in Ethiopia as one of the PPP's work packages is to establish a chemical management curriculum for undergraduate students of the B.Sc. in Textile Engineering.

From late 2020, the Implementation HUB will roll out a concept for training and awareness creation on chemical management. This will be at local textile manufacturer level and will involve ZDHC Brands and Friends of ZDHC.

Implementation HUB participated in the first local presentation and debate for the project at joint fairs; African Sourcing and Fashion Week, and All African Leather Fair in Addis Ababa (November 2019). GIZ, DOW and Implementation HUB Project Managers finalised further details of the project's implementation.



## ZDHC partnership support and stakeholder management

The Implementation HUB began its first joint projects with ZDHC's newly established partnership management department. The Implementation HUB supports partners who focus on integrating ZDHC guidelines, platforms and solutions to their systems and supply chains (such as the ZDHC Academy or InCheck reporting).

### UNIDO SwitchMed

The Implementation HUB has signed an intention to collaborate with UNIDO SwitchMed. Both parties will start to discuss a future collaboration in North African sourcing countries Egypt, Tunisia and Morocco. After a successful 2018 pilot training in Egypt, the ties in 2019 became stronger and collaboration from 2020 onwards is being explored. The Implementation HUB provided consultancy to UNIDO on the conceptual design of the project's chemical management elements (e.g. how to integrate ZDHC training and additional platforms and solutions into their programme). Furthermore, the Implementation HUB connected UNIDO with ZDHC Brands that source from these countries, creating win-win scenarios.

## Next Steps

### Supporting the ZDHC Brands to Zero Programme

The Implementation HUB will continue to provide essential support to the ZDHC Brands to Zero Programme. Including supporting brands with ZDHC webinars, or providing expertise to third-party assessors, enabling them to conclude on brands' performance in the first half of the year.

After the assessment phase concludes, the Implementation HUB will again meet with brands throughout the second half of the year, for Roadmap development meetings.



## ZDHC Supplier to Zero Programme from Concept Design to Programme implementation

During the first quarter of 2020, the Implementation HUB will ensure the development of the Supplier to Zero Programme self-assessment and self-learning platform. Content for the Foundational Level will also be developed during this time. Brands will learn about opportunities to engage with the Foundational Level pilot. They will also learn how to roll it out to their supply chains.

During the first quarter of 2020 and over the course of the second quarter, the Implementation HUB will set up criteria and the related desktop review system for the Progressive Level. A respective third-party partner must also be identified, approved and trained as part of this.

## 'Find Your Expert' Platform from Concept Design to implementation

In 2020, the Approval Platform for approved solution and service providers will be launched. Later in 2020 the Find Your Expert Platform will revolutionise how brands and manufacturers search for experts to deliver ZDHC related services.

## Brand Lobbies

The Implementation HUB will also bring a 'brand lobby' solution to ZDHC Contributors and partner organisations. This will enable them to guide their manufacturer partners to general ZDHC guidelines, platforms and solutions and to brands' individual implementation approaches. The solution will be launched and available in the second half of the year.

## Public Private Partnership: sustainable chemical and waste management in Ethiopia's fashion industry

For the first working package, the Implementation HUB will start discussing curriculum and course design with the Bahir Dar University and PPP partners, GIZ and Dow Chemicals. The first course is scheduled to start in October 2020. Lecturers must be trained and enabled to deliver the relevant content.

The Implementation HUB will also engage with ZDHC Brands and Friends of ZDHC that source from Ethiopia. The involvement of brands is very welcome in striving to deliver on KPIs set by the second working package.

## UNIDO SwitchMed

In early 2020, UNIDO will conclude a tendering process for ZDHC ATPs and begin training activities. In total, the project aims to involve more than 30 suppliers, while engaging with local authorities and academia for awareness-raising. UNIDO will work with Inditex in Morocco and partner with PVH and HUGO BOSS in Tunisia. The launch of the Egypt project and the related involvement of brands will depend on final agreements with the local government.

