

Annual Report 2015

Ø ZDHC

The Zero Discharge of
Hazardous Chemicals
Programme

Leaders in Environmental Responsibility

adidas
GROUP

BURBERRY



coop

ESPRIT

F&F

Gap Inc.

G-STAR RAW

H&M

INDITEX

Jack
Wolfskin

Lbrands

LEVI STRAUSS & CO.

LI-NING

MARKS &
SPENCER
LONDON

NEWB



PRIMARK

PUMA

PVH

UNITED COLORS
OF BENETTON.

In association with

BSI
Association of the
German Sporting Goods Industry

EUROPEAN
OUTDOOR
GROUP

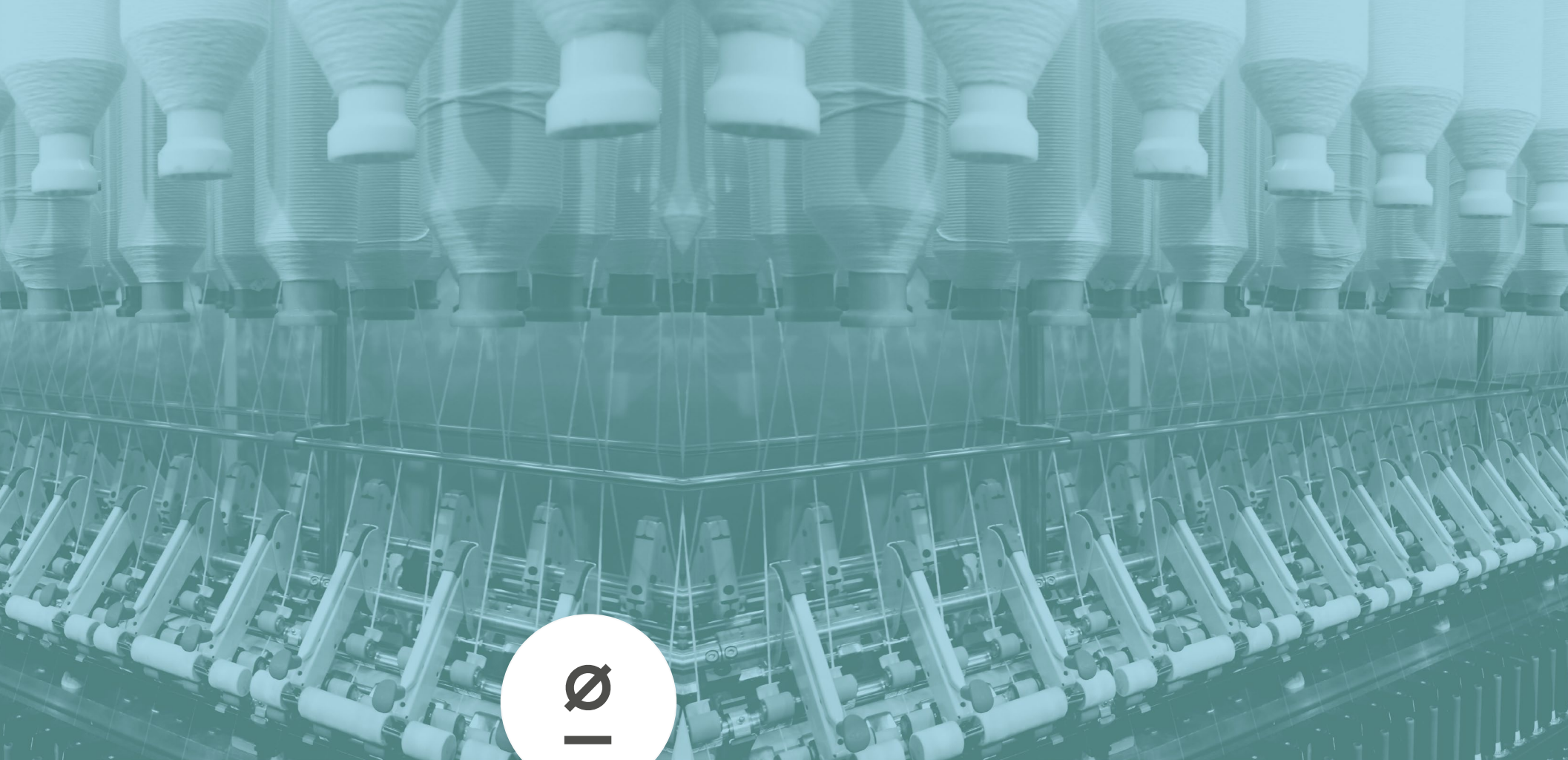
Everlight
Chemical

GermanFashion
Modoverland Deutschland e.V.

JINTEX

PolyOne

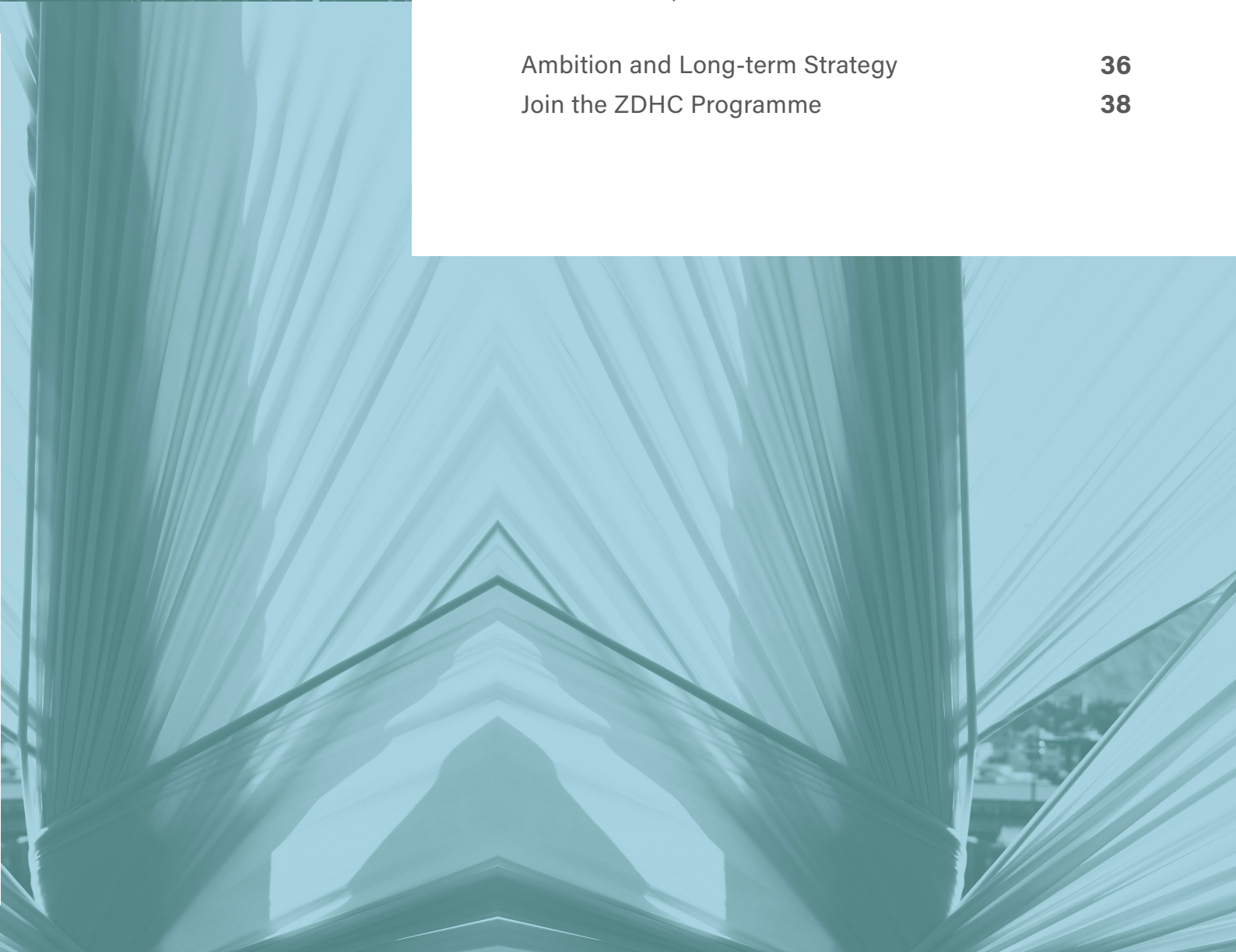
SIWI



**The Zero Discharge
Hazardous Chemicals
Programme 2015
Impact Report**

Contents

Executive Director’s Letter	4
The ZDHC Programme	6
Overview of 2015 Key Achievements	8
Focus Areas Overview:	12
▪ MRSL and Conformity Guidance	12
▪ Research	16
▪ Audit Protocol	20
▪ Wastewater Quality	24
▪ Training	28
▪ Data and Disclosure	32
Ambition and Long-term Strategy	36
Join the ZDHC Programme	38



—

Executive Director’s Letter

—

In the past, there have been efforts to remove hazardous chemicals from the global textile and footwear value-chain, however until now, these efforts have been fragmented.

The difficulty in solving this issue is that the value-chain is large, complex and interlinked. No one brand or supplier can change it alone.



*The ZDHC Board of Directors

Industry collaboration is essential in driving new standards forward.

The ZDHC Programme was born from an awareness that holistic systems-change is required, and that to be successful all participants within the value-chain must be involved.

In 2011, six brands joined forces as the ZDHC Group to collaborate on this issue,

and today, that number has grown to 21 brands and seven associates.

This year, the ZDHC Programme made significant strides setting the stage for future evolution and growth.

The ZDHC Programme transitioned to a separate legal entity, the ZDHC Foundation. Along with the appointment of myself as Executive Director, and a small dedicated team spread across Europe and the United States, the ZDHC Headquarters was established in Amsterdam.

The ZDHC Foundation’s first Board of Directors were elected, and the Joint Roadmap Update for the programme was published, refining the scope of the programme to four key focus areas, and two cross-cutting areas.

Wastewater quality was added to the scope of the Programme, and the first step towards publishing Wastewater Guidelines was achieved with the release of the Textile Industry Wastewater Discharge Quality Standards Guidelines Literature Review.

Two additional major highlights include the second update to the Programme’s Manufacturing Restricted Substances List

*Board of Directors Left to Right: Charles Dickinson, Primark, Scott Vitters, Nike, Graham Storrie, Esprit, Stefan Seidel, Puma, Monica Gorman, New Balance Athletic Shoe, Frouke Bruinsma, G-Star Raw, Nathaniel Sponsler, Gap, Joyce Tsoi, H&M and Philipp Meister, Adidas Group.

Version 1.1, which was expanded to include leather, and the release of the Chemical Management System Guidance Manual, a pragmatic process for managing hazardous chemicals.

Now in its fourth year, the ZDHC Programme has firmly shifted its focus from the development of tools and standards towards implementation, and I am excited to be leading this ambitious collaboration forward.

Collaboration underpins the work of the Programme, and we are grateful to our contributors who have each been involved in creating and implementing the

work achieved so far.

Together, we are working to create and harmonise standards to ensure safer chemicals management, and the protection of workers, consumers and the environment.

As we continue to learn and make new discoveries, we welcome new organisations to join us in our mission, focussed on working towards a safer, more sustainable world.



Frank Michel,
Executive Director



The ZDHC Programme and Objectives



In 2015, The ZDHC Programme released its Joint Roadmap Update, which built on The ZDHC Programme's successes to date and mapped the path forward for the next five years.

The roadmap is a clear and strategic effort to focus Programme efforts and

resources, and outlines the transition of the Programme from seven workstreams to four focus areas and two cross-cutting areas.

These areas were identified to optimise impact and complement the work of other industry associations and non-governmental organisations.

How we work

The operational plans for each area cover three types of work. These are detailed below.

These three categories are key for effecting industry change – not only for creating aligned guidance and tools, but for aligning on how we effectively implement on the ground.

Engaging a network of stakeholders also is important in mutually supporting and amplifying this change throughout the industry value chain.

- 1. Standard Setting Guidance**
Creating and maintaining ZDHC MRSL, Research, Audit Protocol, Wastewater Quality, Training and Data and Disclosure guidance to achieve acceptance and use of ZDHC tools and processes as the industry standard.
- 2. Collaborative Implementation**
Creating action plans to ensure implementation, adoption and widespread industry acceptance of ZDHC guidance and processes.
- 3. Engagement**
Identifying who and how we engage with key stakeholders to maintain the credibility of ZDHC guidance and ensure adoption, implementation and widespread use of this guidance.

The ZDHC Programme



Manufacturing Restricted Substances List (MRSL) and Conformity Guidance

This focus area includes two primary tracks of work; updates to the MRSL and effective engagement to promote adherence to MRSL chemical use restrictions.



Wastewater Quality

This focus area is aimed at minimising chemical pollutants discharged into the environment through good process controls and effective chemical management by developing Wastewater Quality Guidance.



Audit Protocol

This focus area works towards harmonising the audit tool with the Sustainable Apparel Coalition (SAC) and the Outdoor Industry Association (OIA), finalising the audit conformance process and engaging industry groups to promote adoption of the audit tools.



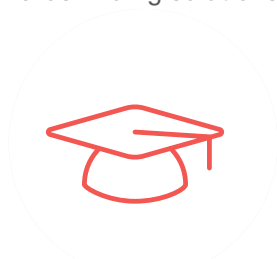
Data & Disclosure

This cross-cutting area ensures that to be effective, we work with other organisations to develop standardised chemistry management data in each of our focus areas.



Research

This focus area serves to identify high priority chemicals that present a possible hazard and should be managed, or have no or few replacements. The ZDHC Research List sends a signal that alternatives are needed and drives action towards finding solutions.



Training

This cross-cutting area supports understanding, acceptance and use of ZDHC tools across the value-chain. This includes web-based and in-person training and incorporating country and regional training needs.

2015

Overview of Achievements

"In the past, we were working in silos within our brands; this is our effort to come together and work more effectively towards the elimination of hazardous chemicals. The ZDHC Programme is about collaborative implementation – speaking to the value-chain with one common voice." Nathaniel Sponsler, – Sr. Manager Sustainable Chemistry and Policy, Gap Inc. and ZDHC Board Chairman



2015

JANUARY

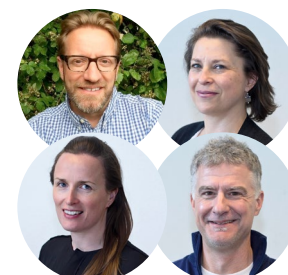
In January, ZDHC registered as a legal entity under Dutch Law and the ZDHC Foundation was established.

JULY

In July, the ZDHC Board of Directors was elected.



AUGUST



In August, ZDHC's first Executive Director and a dedicated team spread between The Netherlands and the United States of America was appointed.

SEPTEMBER

In September, an update to ZDHC's Manufacturing Restricted Substances List (MRSL) was released.



DECEMBER

In December, the Textile Industry Wastewater Discharge Quality Standards Literature Review, a comprehensive review of wastewater discharge guidance in the current textile industry, was released.



In 2015, the ZDHC contributor base grew from 18 to 21 brands, and seven associates.

JULY



In July, the Chemical Management System (CMS) Guidance was released.

AUGUST



In August, ZDHC released the Joint Roadmap Update, transitioning the programme from seven work-streams into four focus areas and two cross-cutting areas.

AUGUST

In August, the ZDHC Foundation Headquarters, based in Amsterdam, was established.



NOVEMBER

In November, ZDHC's stakeholder meeting was held with more than 100 participants from across government, the non-profit sector, academia, chemical manufacturers, material suppliers, and leading brands, working together to ask critical questions to pave the way forward.



— Engaging with key stakeholders by presenting the ZDHC Programme at the following events: —

Green Textile Symposium |
January – Guangzhou, (Nike, Inc)

China and Asia Textile Forum |
February - Beijing (adidas Group and H&M)

Interfilere Hong Kong 2015 Innovation and Sustainability Conference | March - Hong Kong (H&M)

Sustainable Fashion Business Consortium | May - Hong Kong (H&M)

China Leather Brand Conference Beijing |
June - (Nike)

Roundtable meeting between China Synthetic Leather companies and ZDHC Brands | August - (C&A, Nike)

BLC Event | September - Hong Kong (adidas Group)

Bangladesh Second Stakeholder Engagement Workshop | October - Bangladesh (H&M)

ITMA 2015 Milan and the 2nd Textile Colourant and Chemical Leaders Forum Programme | November - Milan (Benetton Group)

ZDHC Annual Stakeholder Meeting |
November - Levi Strauss & Co. Headquarters in San Francisco

BLC Leather Working Group Scott Launch of MRSL v.1.1 | December - London (Scott, Echols, ZDHC Technical Director)

Sustainable Manufacturing Business Consortium | December - Beijing (Frank Michel, ZDHC Executive Director)



"We joined ZDHC because we knew one brand cannot solve this issue alone. It's exciting brands and chemical companies are coming together with NGOs to solve this issue and really make a difference. The power of the collaboration of ZDHC has proven itself over the past few years, and it's now gaining momentum."
- Charles Dickinson, ZDHC Board Treasurer and Primark's Environmental Sustainability Controller

Focus Area Update: MRSL and Conformity Guidance



MRSL and Conformity Guidance
There are two primary tracks of work related to this focus area, specifically updates to the ZDHC Manufacturing Restricted Substances List (MRSL) and the effective engagement for adherence to ZDHC MRSL chemical use restrictions.

1 Standard Setting	Develop MRSL Leather, V.1.1	MRSL Leather, V.2	Update MRSL as needed	ZDHC MRSL recognised as industry standard
2 Collaborative Implementation	Develop and align on conformance process	Publish MRSL conformance process		Widespread industry adoption of ZDHC MRSL
3 Engagement	Identify and engage stakeholders	Continue to identify and engage with key industry stakeholders		Third, party stakeholders support MRSL and industry considers it standard business practice
	Engage Chinese leather industry associations	Continue to engage Chinese leather industry associations		
	Educate other industry associations			

"The ZDHC MRSL creates one harmonised direction for the global supply chain." Phillip Meister – Manager Sustainable Materials and Innovation at adidas Group and ZDHC Board Member



Overview

In the ZDHC [Joint Roadmap Update](#), ZDHC Signatory Brands committed to defining and developing an MRSL for the textile and footwear industry.

In doing so, ZDHC brands recognised the value of addressing hazardous substances potentially used and discharged into the environment during manufacturing and related processes deep within the value-chain - not just those present in finished products.

In 2014, the Programme released its first MRSL and, in December 2015, this was expanded to include leather.

The ZDHC MRSL

The MRSL is a list of chemical substances banned from intentional use in facilities that process textile materials and trim parts in apparel and footwear.

It establishes acceptable concentration limits for these substances as impurities or by-products in chemical formulations used within manufacturing facilities.

Limits defined by the MRSL are designed to eliminate the possibility of intentional use of listed substances.

It is the Programme’s vision to have the ZDHC MRSL and conformity process guidance serve as the global textile and apparel industry standard.

Achievements 2015

In 2015, the Programme published Version 1.1 of the ZDHC MRSL, which expanded the original list created in 2014 to include leather.

The MRSL Version 1.1 was developed by ZDHC textile and footwear brands in close collaboration with third-party technical experts and global industry associations.

The MRSL Version 1.1 includes chemicals used in facilities that process materials and trim parts for use in textile and footwear.

These chemicals include solvents, cleaners, adhesives, paints, inks, detergents, dyes, colourants, auxiliaries, coatings and finishing agents used during raw material production, wet-processing, maintenance, wastewater treatment, sanitation and pest control.

The MRSL will assist brands and organisations throughout value-chains and the broader industry in phasing out/substituting hazardous substances potentially used and discharged into the environment during manufacturing and related processes.



"The ZDHC MRSL offers brands and suppliers a harmonised approach, and list of restricted chemicals, that are not to be used in textile and footwear production. ZDHC brands will be communicating the ZDHC MRSL Version 1.1 standard to their supply chains. This is of particular interest to wet processing facilities such as dyehouses, laundries, and tanneries who can then request chemical formulations that comply with the ZDHC MRSL Version 1.1 standard from their chemical suppliers." - Scott Echols, ZDHC Technical Director



Next Steps

- ▶ The MRSL Conformance process will be finalised and published in 2016. It will describe how the value-chain can assess claims of conformance with the MRSL by chemical suppliers.
- ▶ ZDHC brands will continue implementing the ZDHC MRSL in their value-chains.
- ▶ The annual review of the MRSL will be conducted. A transparent process will be used to update the MRSL as needed to cover additional materials and chemical substances.
- ▶ ZDHC will explore ways to scale adoption of the MRSL outside of ZDHC brands.

Focus Area Update: Research

	2015	2016-17	2018-19	2020
1 Standard Setting	Definition of a process for finding safer alternatives for substances on the Research List	Revision and improvement to find safer alternatives and ways of engaging with stakeholders		Standardised process for continuous research and evaluation of safer alternatives
		Revision of Research List and definition of process for adding new chemicals		Defined and assessed process for adding and removing substances to/ from the Research List
2 Collaborative Implementation	Define research process and start pilot project with one prioritised substance	Continue pilot project: research, collection and evaluation of alternatives		
		Review research process and kick-off further research for other substances or functional uses on the current Research List	Continue research for substances on the Research List	
		Review current process of adding chemicals to the Research List considering the MRSL work and prioritization framework	Apply process for revision of the Research List (<i>adding and deleting substances</i>)	

3 Engage-ment	Engage chemical industry, research institutes, governments and other stakeholders	Enhance engagement with stakeholders that are specialised in particular fiels of research		Continuous engagement of chemical industry, research institutes, governments and other interested stakeholders
--------------------	---	---	--	--

Overview

In conjunction with key collaborators from the chemical industry, academic researchers and governmental agencies, this focus area encourages research into the development of safer alternatives and conducts research on priority chemicals.

It seeks to encourage research into the development of safer alternatives for substances on the ZDHC Research List so brands and their value-chains can make informed decisions, and conduct research on priority chemicals for which safer alternatives do not currently exist.



Achievements 2015

- A process to identify safer alternatives listed on the ZDHC Research List was defined.
- The first substance on the Research List was prioritised for substitution. This chemical, Dimethylformamide (DMF), is the Programme's first research request for alternatives.
- The ZDHC Research Team engaged with ZDHC brands and the ZDHC Technical Advisory Committee on technical details of the chosen chemical, DMF.
- Additionally, a chemical hazard assessment method was defined to ensure comparable results. All alternatives submitted will be assessed according to this method, and based on this, ZDHC brands will be able to make informed decisions on chemical substitution.

Next Steps

- In 2016, the final research process will be published. All interested stakeholders are welcome to submit alternatives.
- After the test period on Dimethylformamide (DMF) is finalised, the ZDHC Research Focus Area Team will conduct a review of the process and revise and/or create supporting tools if needed.
- Once adjustments have been finished, the ZDHC Research Focus Area Team will initiate research actions for other substances or functional use cases on the current Research List.
- In collaboration with the MRSL Focus Area, the ZDHC Research Focus Area Team will further define a process for adding new substances to the Research List.
- The long-term vision is that substances on the Research List move from the Research List to the to MRSL in order for the ZDHC Programme to phase out these substances.



Focus Area Update: Audit Protocol



Overview

The ZDHC Audit Protocol focus area tools include the ZDHC Audit Tool, which is supported by the ZDHC Chemical Management System (CMS) Guidance Manual.

The Audit Tool enables in-depth assessment of chemical management practices by suppliers. Suppliers are encouraged to continuously improve against the principles of the CMS Guidance Manual in order to support ZDHC brands in furthering their chemicals management practices and work towards their zero discharge goals.

The purpose of the CMS Guidance Manual is to provide guidelines for suppliers to develop, evolve and maintain their own chemical management system.

It creates a comprehensive and pragmatic approach for managing chemicals in the value-chain with content arranged into three main categories according to the desired level of attention - foundational, progressive and aspirational.

Effective development and adoption of the Audit Tool together with the CMS Guidance Manual is pivotal in supporting implementation of the ZDHC MRSL.

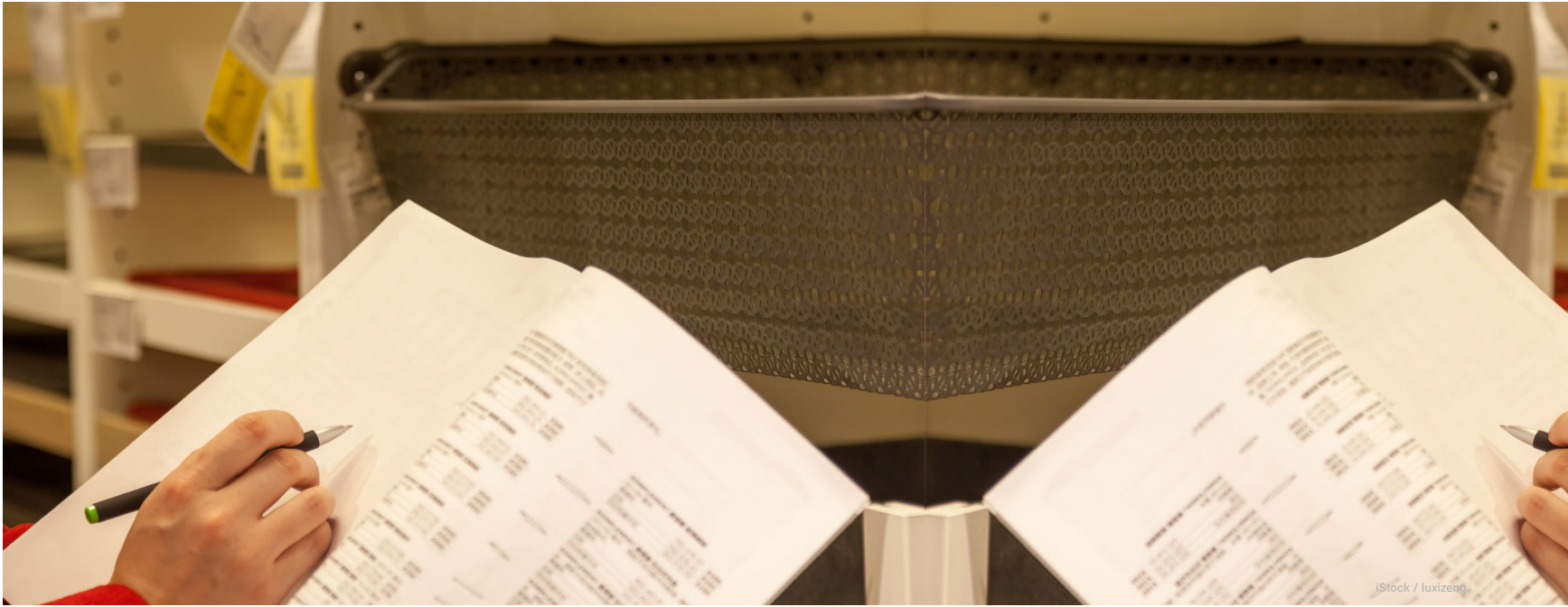
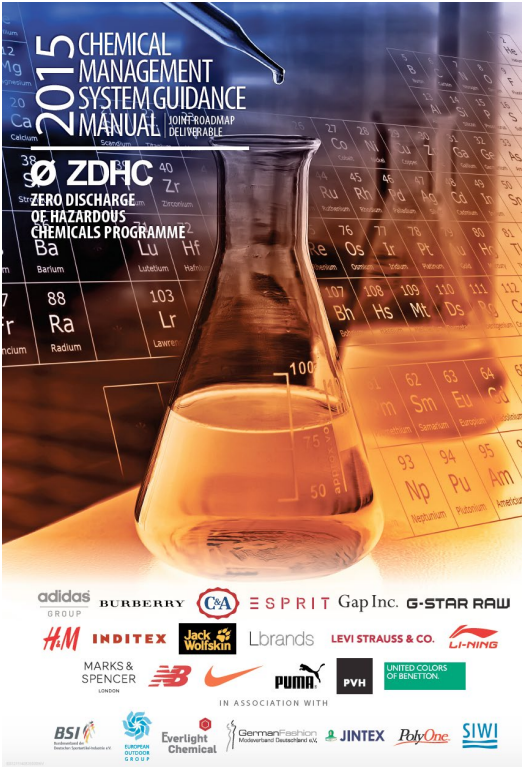
Success in this focus area will be measured by widespread industry adoption of the ZDHC Audit Tool as the global textile and footwear standard, and extensive use of the tool by all tiers of the value-chain.

Achievements 2015

In July 2015, the Chemical Management System (CMS) Guidance Manual was released. Aimed at manufacturing suppliers, brands, retailers and chemical suppliers it outlines a comprehensive and practical process for managing chemicals whilst allowing an entry point for different organisations in the value-chain. It is intended to be a living document and will be periodically updated.

A significant step towards alignment on industry chemical assessment was the agreement on a Memorandum of Understanding with the Sustainable Apparel Coalition (SAC) with the aim of harmonising the ZDHC Audit Tool with relevant parts of the SAC HIGG Facilities Environment Module (FEM).

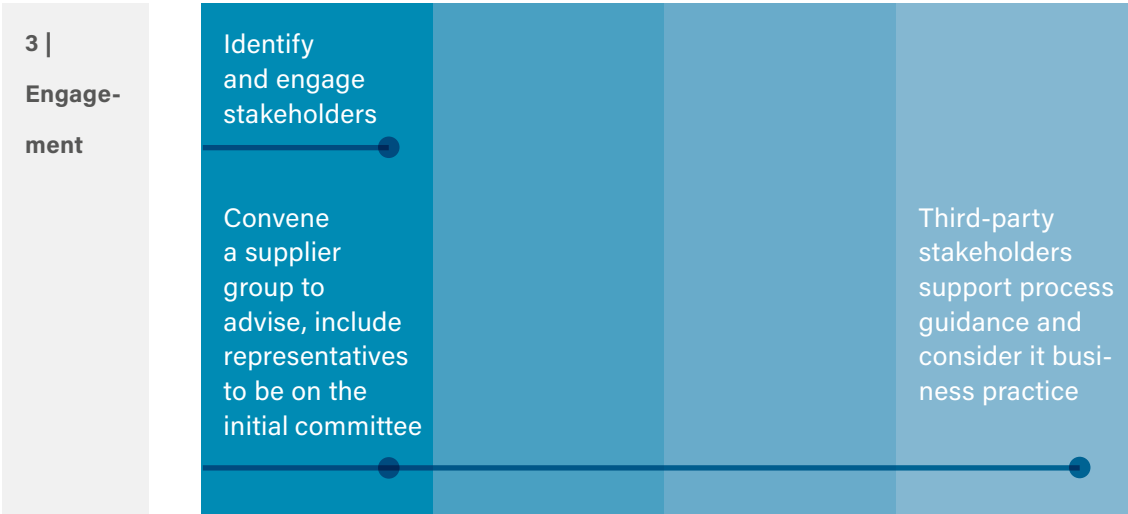
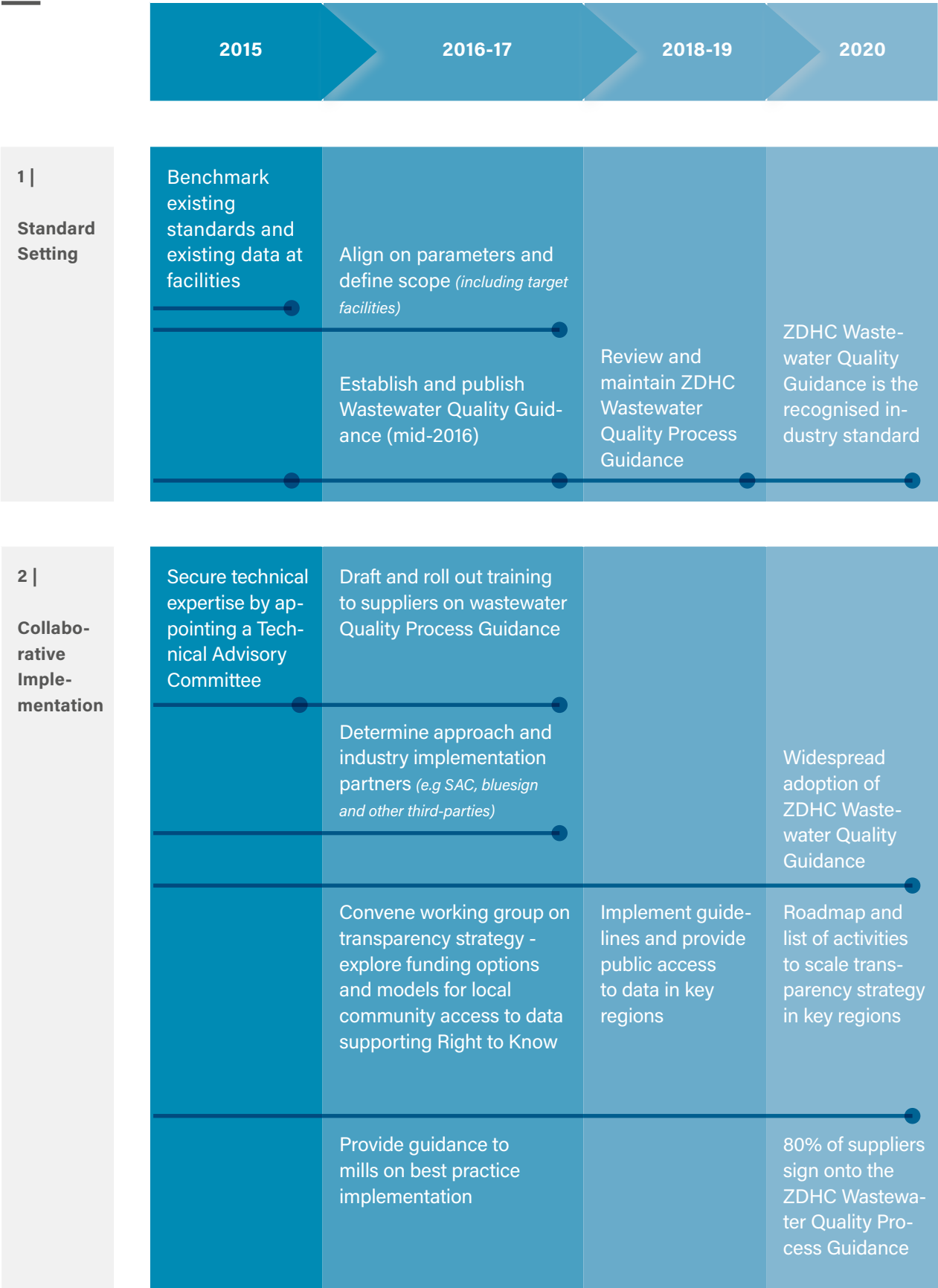
In August, the Joint Roadmap Update was published, which worked to align the application of the Audit Tool to existing systems. The ZDHC Programme will continue to develop and refine the Audit Tool as the standard for chemical assessment in the apparel sector.



Next Steps

- In 2016 the harmonisation process with the HIGG FEM 3.0 module will be finalised. Going forward, the Audit Tool will become the verification process of the self-assessment input by suppliers for chemical management in the FEM.
- The common aim of SAC, OIA and the ZDHC Programme is to create one consistent set of chemical management assessment tools to evaluate manufacturers' chemical management across their respective value-chains. Working collaboratively, the Programme will lead content development for future updates on chemical management in the chemicals module of the HIGG FEM and participate in the overall governance of the FEM.
- During this process, the Audit Tool will be refurbished to incorporate a key performance indicator format, ensuring consistency and adaptability to brands and suppliers.
- Next steps include finalising the chemical assessment tool harmonisation, as well as any resulting necessary updates of the Audit Tool and CMS Guidance Manual to ensure alignment with the FEM update.
- Further, this focus area will focus on engaging other stakeholders regarding harmonisation of ZDHC brand adoption of the ZDHC CMS Guidance Manual Version 2.0 and Audit Tool Version 3.0.

Focus Area Update: Wastewater Quality



Overview

Well-designed, properly functioning wastewater treatment plants, good process controls and effective chemicals management are key tools to minimising chemical, physical and biological pollutants discharged into the environment.

To support industry-wide wastewater treatment guidance, in 2015, the ZDHC Programme expanded its focus to include Wastewater Quality.

Factory wastewater discharge may contain chemicals, including chemicals found in the 11 priority classes.

The risk of releasing these chemicals will be reduced or eliminated by adoption of ZDHC's wastewater guidance as the global textile and footwear industry standard.

Work in this focus area seeks to assess effluent discharge improvements for conventional wastewater parameters such as BOD (biochemical oxygen demand), COD (chemical oxygen demand), TOC (total organic carbon) or Colour.

The Programme's wastewater guidance will ensure harmonised test methods and clarify minimum requirements and good practice.

Implementation of the guidelines will ensure consistent data and avoid duplication of testing and confusion in the value-chain.

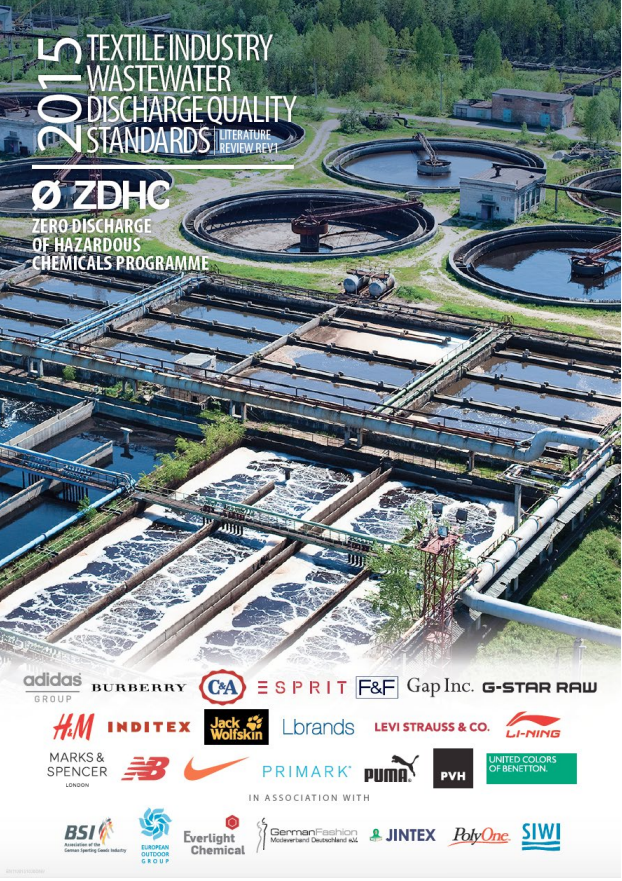
Achievements 2015

To coordinate industry efforts, reduce duplication and clarify requirements throughout the value-chain, the ZDHC Programme undertook a literature review of wastewater discharge guidance in the current textile industry, published in December 2015.

Information gathered during this review process showed a wide range of discharge regulations and measurement methods that differ from nation to nation, as well as between guidelines published by brands and amongst multi-brand consortia.

Findings from this review will be used as a baseline for formulating a new set of common industry wastewater discharge guidelines.

This newly founded focus area is supported by five international wastewater experts from Bangladesh, China, Germany and the United States, who will help develop the wastewater guidance document.



Next Steps

- Keeping the goal of zero discharge firmly in mind, the ZDHC programme will work with key collaborators to formulate new Wastewater Quality Guidelines due for release in September 2016.
- These guidelines will focus on ZDHC MRSL-listed chemical substances and conventional wastewater parameters to reduce or eliminate the risk of releasing MRSL-banned substances.
- Developing a single, unified discharge guideline and standardised analytical methods for monitoring wastewater quality will benefit the textile industry greatly and will drive momentum towards meeting the Programme's zero discharge goal.



Cross-Cutting Area Update: Training



	2015	2016-17	2018-19	2020
1 Standard Setting	<div>Develop procedures for trainer selection, approval and evaluation</div> <div>Develop strategic plan to support focus areas</div>	<div>Support focus areas on topic-specific training</div> <div>Review training KPIs and alignment with data schema</div>	<div>Develop/update and extend topic training as needed</div> <div>Update training strategy</div>	<div>Update training strategy beyond 2020</div> <div>Curriculum recognised as industry standard</div>
2 Collaborative Implementation	<div>Scale up basic/foundational training in the 5 prioritised countries; develop and pilot progressive trainings</div> <div>Initiate tender process and conduct trainings</div>	<div>Scale-up progressive training to value-chain</div> <div>Measure training success through KPIs</div>	<div>Update training as recommended by KPIs</div>	<div>Measure training success through KPIs</div> <div>ZDHC trainings are well attended and recognised industry standard</div>

3 Engage-ment				Stakeholders scale-up trainings throughout industry and suppliers seek training and build capacity for business innovation in chemical management
	Training providers	Align with SAC, GIZ, CNTAC, BGMEA, OIA, in the UNEP Training Project (China)	Continue to engage these organisations	
	Align with other industry organisations (SAC, EOG, GIZ, CNTAC, BGMEA)			
	Local chemistry associations (MRSL training)	Collaborate with IPE to educate suppliers with non-conformities	Continue collaboration with IPE to extend supplier education	
	Mills/dyehouses			

Overview

A well-informed and educated value-chain is a precondition for implementing ZDHC tools, and to reach the Programme’s zero discharge goal.

The objective of this cross-cutting area is to plan, develop, time and launch training to support both the understanding, acceptance and use of the ZDHC Programme focus area process guidance and expedient value-chain scale-up.

Working closely with each focus area, this team is developing a long-term training plan and comprehensive curriculum package that aligns training modules with other ZDHC tools.

Training packages will be updated as necessary to maintain harmonisation, and going-forward, training will be offered both online, and in-person according to country and regional training needs.

Achievements 2015

In 2015, five foundational chemical management training modules were published.

A strategic plan to support focus areas was developed.

Progressive chemical management training was initiated.

A process for ZDHC training provider selection, approval and evaluation was defined.

A tender was released and initiated, and the process for accrediting training providers begun.



"It's one thing to have a standard on a piece of paper; it's another to have 20 different ways of implementing it. With ZDHC, we are working to demystify some of the complexity around chemical management." – Anna Walker, Senior Director, Government Affairs and Public Policy at Levi Strauss & Co



Next Steps

- ▼ In 2016, the Programme will appoint its first accredited training providers.
- ▼ These training providers will have the required technical expertise and experience to deliver training in local languages and meet the needs of the value-chain located in five priority countries: China, Bangladesh, India, Vietnam and Turkey.
- ▼ To scale up this training, and to reach other countries and regions, the ZDHC Programme is developing a robust training infrastructure with an emphasis on quality, consistency and technical competency in chemical management.
- ▼ By working collaboratively with the Data & Disclosure focus area team, key training KPIs will be defined so improvements can be measured and reported on.
- ▼ 2016 will also see further development of the progressive chemical management training.

Focus Area Update: Data and Disclosure

	2015	2016-17	2018-19	2020
1 Standard Setting	Complete MRSL data standards	Publish annual updates to schema; add schema from other focus areas		
	Complete data standards for chemical companies to publish their MRSL compliant formulations	Incorporate Audit, Wastewater Quality and Training lead data standard additions	Publish annual updates to MRSL, Audit Protocol, Wastewater Quality and Training schemas	
	Work with service providers to formally publish data standards and engage with key stakeholders			
		Use data insights to inform Research focus area		
		Liaise with focus area teams to develop/harmonise training to an e-learning kit		
	Commence development of the MRSL into XML format			
2 Collaborative Implementation	Complete pilot; review and document pilot learnings	Pilot additional elements to schema	Align ZDHC data schema with other chemicals management industry standards	Proliferate data standards beyond ZDHC
	Explore ZDHC role in the information sharing platform (registry)	Formally publish best practices in data management	Drive strategies with insights gained from data management efforts	
	Continue collaboration with chemical companies to simplify data inputs	Pilot additional elements to schema		

3 Engage-ment	Explore harmonisation opportunities with SAC	Continue to align schema and encourage adoption with support of key stakeholders (e.g IPE, CNTAC, OIA, SAC)	Explore additional partnerships to align confidential versus public disclosure key performance indicators	Seek broader adoption through cross-industry collaboration (e.g automotive, electronics)
	Begin formal data schema collaboration with CNTAC	Continue to engage with CNTAC		
	Engage service providers to test interoperability of data schema	Continue to work with service providers		

Overview

The ZDHC Programme and its value-chain participants including mills, chemical companies and third-party service providers have been exploring challenges in data capture and reporting.

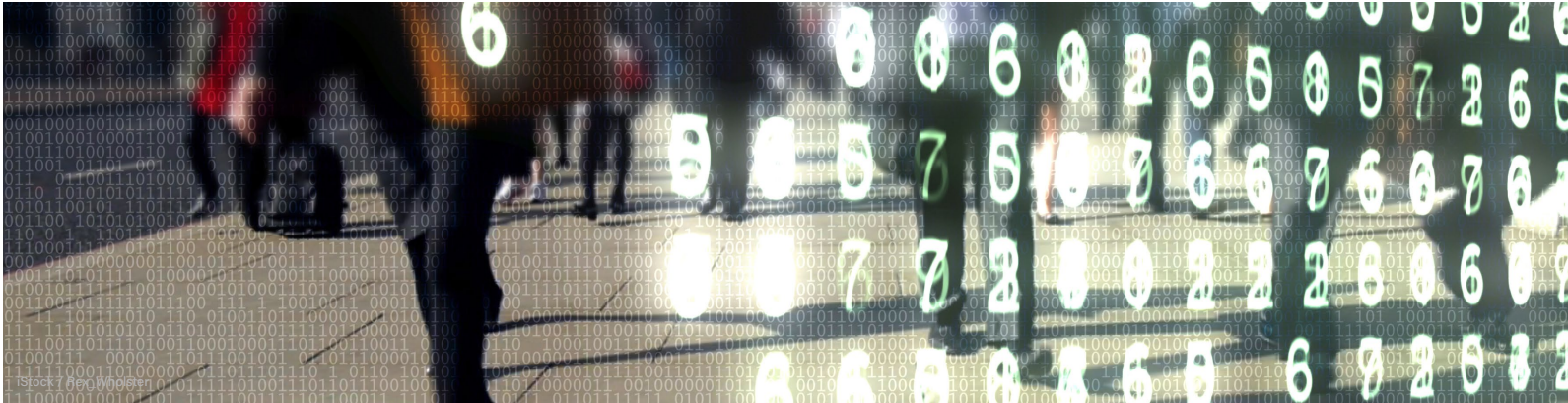
Data touches all parts of the work we do, from MRSL and conformance within formulations, to measuring improvement in water quality by elimination and substitution. These are all relative as we move along the roadmap.

Data exchange provides the dashboard to show progress. If we are to leverage information, and share and report efficiently

between different platforms, a common language for data is essential.

In 2014, the Programme began developing a universal set of standards to organise the way in which key chemical data should be collected and shared for the benefit of all stakeholders.

As individual brands begin to work towards using the data standards in their value-chains, the ZDHC Programme will work with other organisations to develop effective means for sharing standardised chemistry management data in each of our areas of focus.



Achievements 2015

- The Programme moved forward testing and refining the the data points developed for the schema towards the end of 2014.
- Four signatory brands took part in a pilot to roll out data collection within 28 wet processing facilities.
- For the pilot, facilities were requested to uploaded chemical inventories, deliveries and use to an IT platform. The data collected was then processed to report on chemical conformance to ZDHC MRSL Version 1.0. and check usage volumes.
- In July 2015, 22 stakeholders from the pilot were invited to a forum in Germany to review results and lessons learnt. The data schema and the pilots proved successful. One of the key messages from the meeting was to improve the ease of data input for the facilities.
- During the Programme's 2015 annual meeting in San Francisco, a live demonstration of a smartphone app, to be used as a potential method to capture delivery and inventory information within a mill, was presented.
- With MRSL conformance data well on track, new sub-groups were created to specify data requirements in other focus areas, specifically: Wastewater Quality, Audit Protocol and Training.



Next Steps

- ▼ The Data and Disclosure cross-cutting area is now moving towards implementation.
- ▼ The early part of 2016 will see the ZDHC Chemical Registry established as a backbone for MRSL conformance progress.
- ▼ The Chemical Registry is intended to be the product database of all chemical suppliers and their products used in the textile and footwear value chain including their evaluated conformance level towards ZDHC's MRSL.
- ▼ Phase one of the data schema will be published to allow platform providers to use a single standard to develop IT services in chemical conformance.
- ▼ The ZDHC MRSL will be written from the current pdf format into a XML data schema to widen the scope of use within platforms.
- ▼ 2016 will see the initial rollout and brand uptake of data platforms for chemical use and conformance.
- ▼ Wastewater discharge reporting will be a priority for the data team.

Ambition and Long-term Strategy

We are working on accelerating towards our zero discharge goal and establishing the ZDHC Foundation as the global centre of excellence for chemical management.

In this 2015 Annual Report, we have reflected on the achievements of each focus and cross-cutting area against the Programme's Joint Roadmap. Below, we describe how the ZDHC Foundation will be working to have a lasting impact on the textile and footwear value-chain.

Collaborating with Contributors and Engaging Key Stakeholders

As we continue to ask critical questions to pave the way forward, we will deepen our collaboration with existing ZDHC brands as well as increasing the number of contributors to the ZDHC Programme, who, together, drive the success of the Programme.

Our contributor model aims to enable organisations of different sizes and types to engage in the Programme, shape ZDHC standards and implement them in their respective value-chains. In addition, we will continue to engage with strategic stakeholders in our work, from government, the nonprofit sector and academia.

Developing the ZDHC Toolbox and Focusing on Implementation

We know our goal is ambitious. Going forward we will continue to maintain ZDHC tools and develop supporting guidance. We believe that tool implementation is fundamental to driving change. Therefore, we will be assisting brands and the global value-chain to meet ZDHC standards to minimise duplicative efforts, drive efficiency and keep driving towards the ambitious goal.

Expanding the ZDHC Team and Geographic Scope

In 2016, the ZDHC Programme will focus on expanding and deepening its engagement and impact in the Asian region. The placement of an Asia Director in April 2016 will create a strong ZDHC presence in that region. Further, our Head of Communications joined the ZDHC Team in January to further accelerate our global profile and engagement activities.



MRS� and Conformity Guidance

To facilitate implementation of the MRS�, we will support and help the industry with MRS� Conformity Guidance. This is to be released in 2016, and will support facilities to implement the use of chemical formulations that meet the requirements of the ZDHC MRS�. For all substances on the ZDHC MRS�, there are safer alternatives available for use. It is our mission to ensure the list of MRS�-conforming products is easily accessible for the value-chain.

Research

Currently, we are encouraging the development of safer alternatives, or to define limits on contaminant levels, for nine prioritised chemical substances. In 2016, we look forward to releasing our first Research Brief detailing the requirements for one of these substances, sending a signal to all interested stakeholders for the development of a sustainable alternative.

The number of chemicals on the ZDHC Research List is expected to grow as an integral part of the ongoing MRS� review and related stakeholder input process. As a result of these efforts, chemical substances will be placed on the MRS� as safer alternatives are identified and developed.

Audit Protocol

To help brands control risks, advance their efforts and continuously work towards

improving chemical management, the Audit Protocol Focus Area will be working together with the Sustainable Apparel Coalition (SAC), the Outdoor Industry Association (OIA) and the Leather Working Group (LWG) to harmonise audit tools. By harmonising these tools we can reduce the burden on the value-chain and improve chemicals management.

Wastewater Quality

In 2015, Wastewater Quality was added as a ZDHC Programme Focus Area, and in 2016, Wastewater Guidelines will be added to the ZDHC Programme's toolbox. These guidelines will focus on ZDHC MRS�-listed chemical substances and conventional (e.g. COD, metals, solids) wastewater parameters equally to reduce or eliminate the risk of releasing MRS�-banned substances.

Developing a single, unified discharge guideline and standardised analytical methods for monitoring wastewater quality will benefit the textile industry greatly and will drive momentum towards meeting the Programme's zero discharge goal.

Training and Data and Disclosure

In our Cross-Cutting Areas of Training and Data and Disclosure, we will continue to ensure cross-functional connectivity in the value-chain and roll out high quality training modules to our partners in the industry.

Join the ZDHC Programme

Join us in creating and harmonising standards to ensure safer chemical management and the protection of workers, consumers and the environment.

The ZDHC Programme is open to organisations of different sizes and types, committed to driving industry-wide change towards the goal of zero discharge of hazardous chemicals.

ZDHC provides different contribution levels for organisations involved in the textile and footwear industries who have a public senior management commitment to sustainable development.

The Programme's three contributor categories are:

- 1. **Signatory Brands** – Open to brands and retailers.
- 2. **Value-Chain Affiliates** – Open to the textile/footwear industries and related chemical industry and other solution providers.
- 3. **Associates** – Open to industry associations, NGOs and institutional partners such as government, institutions or academia.



What are the benefits of joining ZDHC?

- Stay ahead of legal and regulatory developments with regards to chemical management
- Work as part of a collaboration, developing and implementing ZDHC products and tools
- Access ZDHC tools and products
- Access chemical management and industry expertise
- Network and be associated with leading brands, learning and sharing best practices on chemical management and tool applications and implementation
- Create leadership visibility for your organisation by being part of the ZDHC, driving transformative industry change.



If your organisation shares the ZDHC Programme's vision and goals, and is willing to collaborate in order to achieve transformative industry-wide change, we encourage you to consider joining as a contributor.

www.roadmaptozero.com