SWEDEN TEXTILE WATER INITIATIVE

ZDHC

Scalability and collaboration in water intensive industries to achieve SDGs: Examples from the Textile Sector

A panel discussion with leading industry representatives and stakeholders will address issues of governance, scalability and collaborative models, and provide positive examples of sustainable approaches for the sector to contribute to the SDGs.

Agenda

- Presentation of STWI and ZDHC
- Panel Discussion I - Practical experiences from the supply chain
- Panel Discussion II - The role of policy, regulation and financing
- Concluding remarks

PPDP delivering on SDGs

Katarina Veem
Director, Swedish Water House and International Policy

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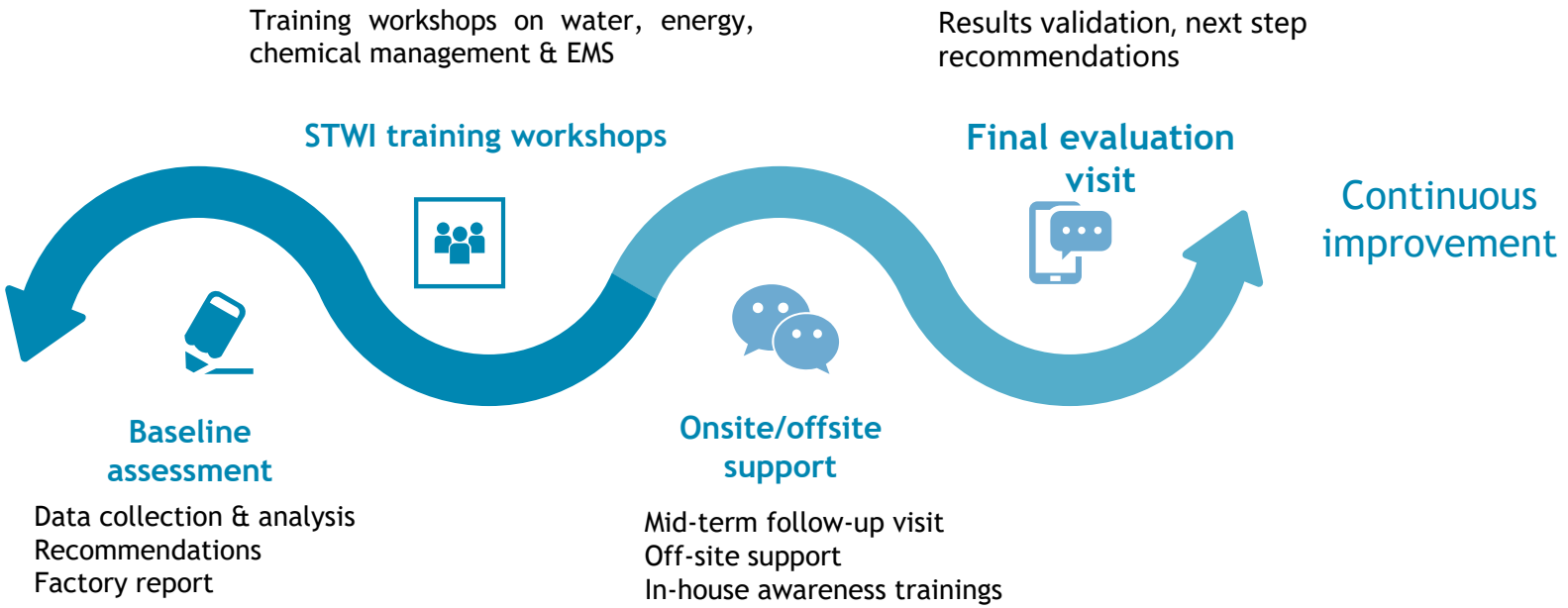
2010
Establishing STWI Network

2011
STWI Guidelines for textile and leather

2012
Pilot in India

2014-2017
Global program in India, China, Bangladesh, Turkey and Ethiopia

STWI program cycle



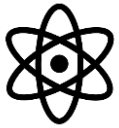
How: Improvement of environmental performance

Build factory capacity on **WHY** they should change

Build factory capacity on **HOW** they could change

Provide onsite awareness trainings (management and on the factory floor to workers) and **technical support**

Collect, analyze, benchmark and report **performance data** for factories, brands, countries, and globally.



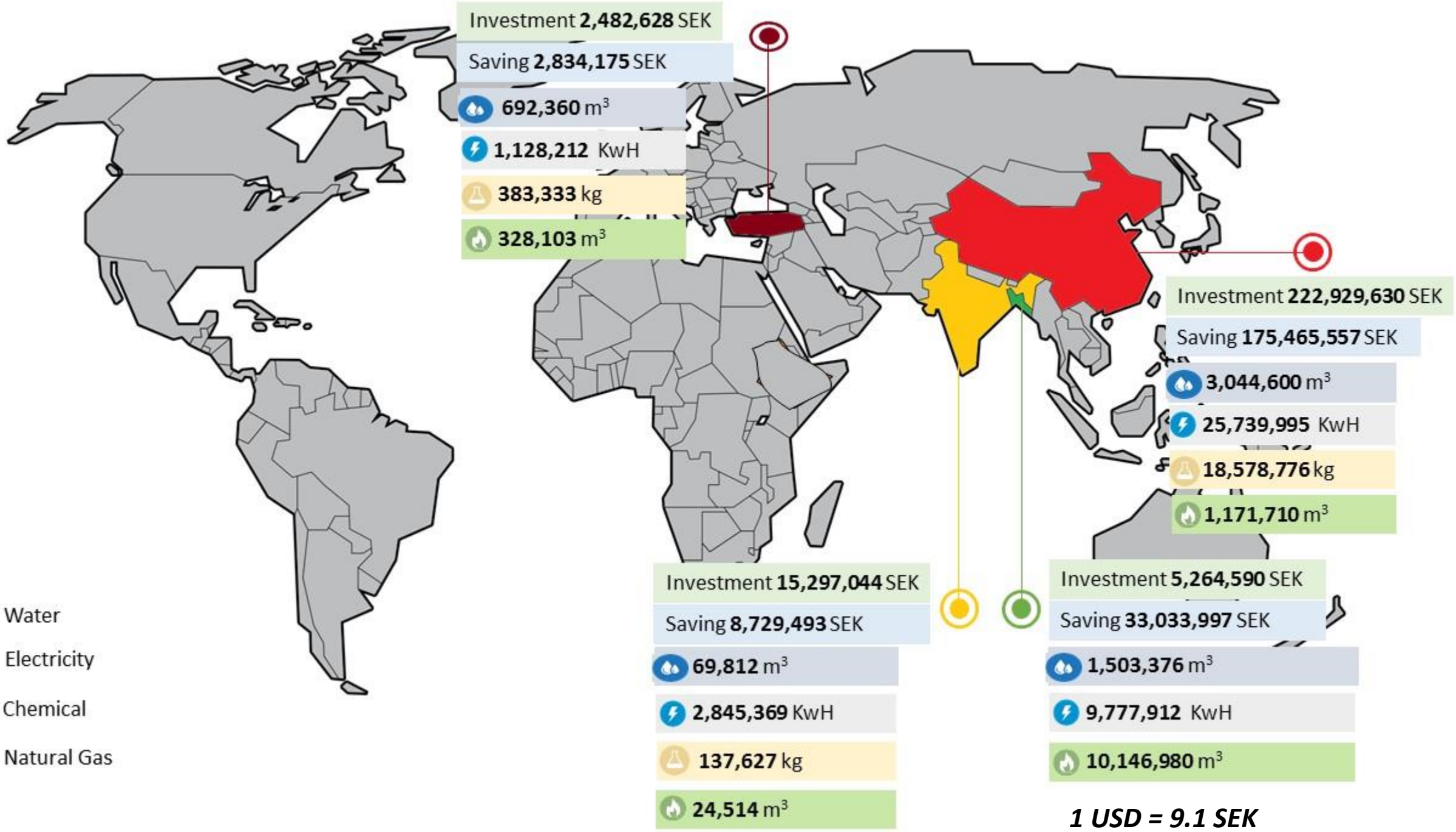
Onsite support on environmental change management: water and waste water, energy, chemicals, solid waste, GHG emissions, productivity… etc

Data sets: Higg, ZDHC, STWI Best management Practices, Productivity KPIs, Resource Consumption, water circularity, financial metrics (Cost-savings, ROI, etc.)

SWEDEN TEXTILE WATER INITIATIVE

STWI results 2016 and 2017

	2016	2017
	• **3.35 Million Cubic Meters water saved annually** • Daily need for 67M people • Annual need for 183,000 people • 6 % reduction of total water use in production process	• **5.2 Million Cubic Meters water saved annually** • Daily need for 104M people • Annual need for 285,000 people • 11.5 % reduction of total water use in production process
	• Electricity use reduced by 28M KwH (2.8 %) • Energy use per kg textile reduced by 24.11 MJ/kg (15 %) • Thermal use reduced by 554,000 GJ (7%)	• Electricity use reduced by 39M KwH (10.1 %) • Natural gas use reduced by 11.6M m3 (12.3 %) • Fossil fuel use reduced by 40,400 tons (3.3 %) • Green house gas emissions reduced by 209,400 tons
	• 15,930 workers trained • 176 management executives trained • 163M SEK long term investments by factories • Estimated 240 % ROI in 3 years • 88.9M SEK saved by factories in operational costs	• >9,300 workers trained • 530 management executives trained • 246M SEK long term investments by factories • Average ROI 15-18 months • 220M SEK saved by factories in operational costs
	• Chemical use reduced by 5,200 tons (3.4 %) • 68 % factories installed resource monitoring systems • 77 % imporovement in legal compliance	• Chemical use reduced by 18,700 tons (11.8 %) • 650 projects completed • 100 % factory improvement of Best Management Practices related to Environmental Management
	• 5 countries covered in STWI • 119 factories • 20 brands with factories in the program • 10 additoinal brands in learning platform • Partnership from Sida • Partnerships with local stakeholders in all five countries	• 4 countries covered in STWI • 96 factories • 13 brands with factories in the program • 17 additional brands in the STWI network • Partnership with Sida • Partnerships with local stakeholders in all four countries


Investment 2,482,628 SEK
Saving 2,834,175 SEK
692,360 m³
1,128,212 KwH
383,333 kg
328,103 m³
Investment 222,929,630 SEK
Saving 175,465,557 SEK
3,044,600 m³
25,739,995 KwH
18,578,776 kg
1,171,710 m³
Investment 15,297,044 SEK
Saving 8,729,493 SEK
69,812 m³
2,845,369 KwH
137,627 kg
24,514 m³
Investment 5,264,590 SEK
Saving 33,033,997 SEK
1,503,376 m³
9,777,912 KwH
10,146,980 m³
Water
Electricity
Chemical
Natural Gas
1 USD = 9.1 SEK

Collaboration & scalability in the textile sector to achieve SDGs

STWI & ZDHC Showcase
World Water Week

28th of August 2018
Stockholm

ZDHC

Some challenges are too big to be faced alone

Transforming an industry requires

- Collaboration
- Alignment
- Transparency

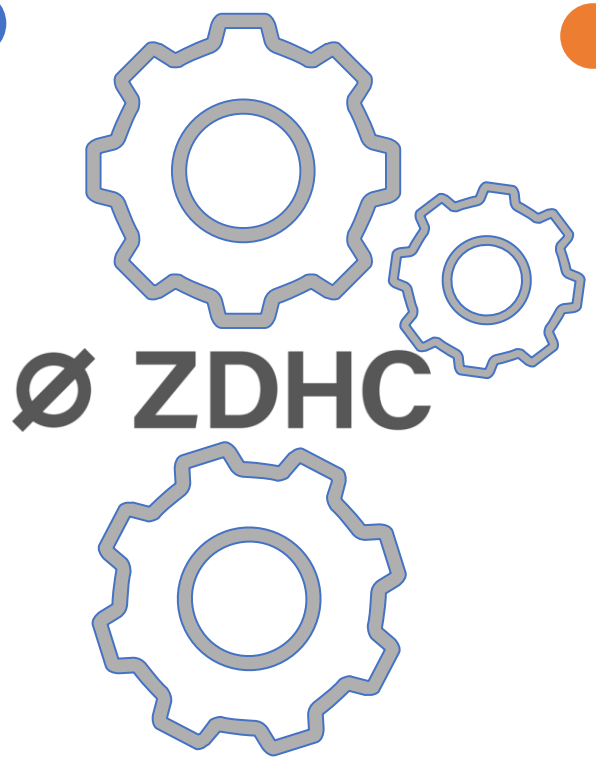
Image: Greenpeace

A multi-stakeholder collaboration
collectively transforming the industry

Brands, retailers and their agents

Laboratories, certifiers, technology providers

Garment makers, dye-houses, tanneries



Governments, policy makers

Chemical manufacturers

Academia, NGOs

Signatory Brands:

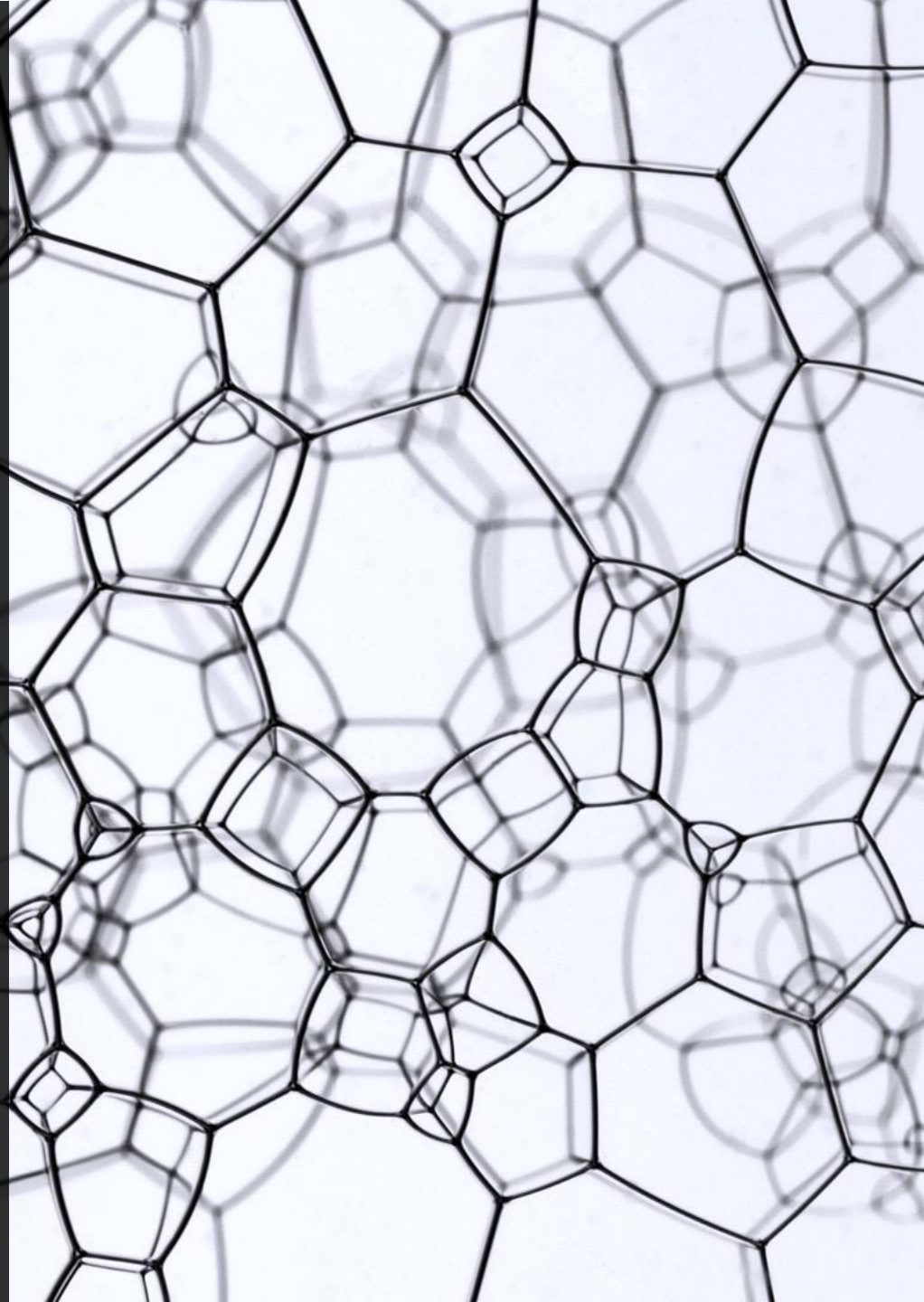
Value Chain Affiliates:

Associates:

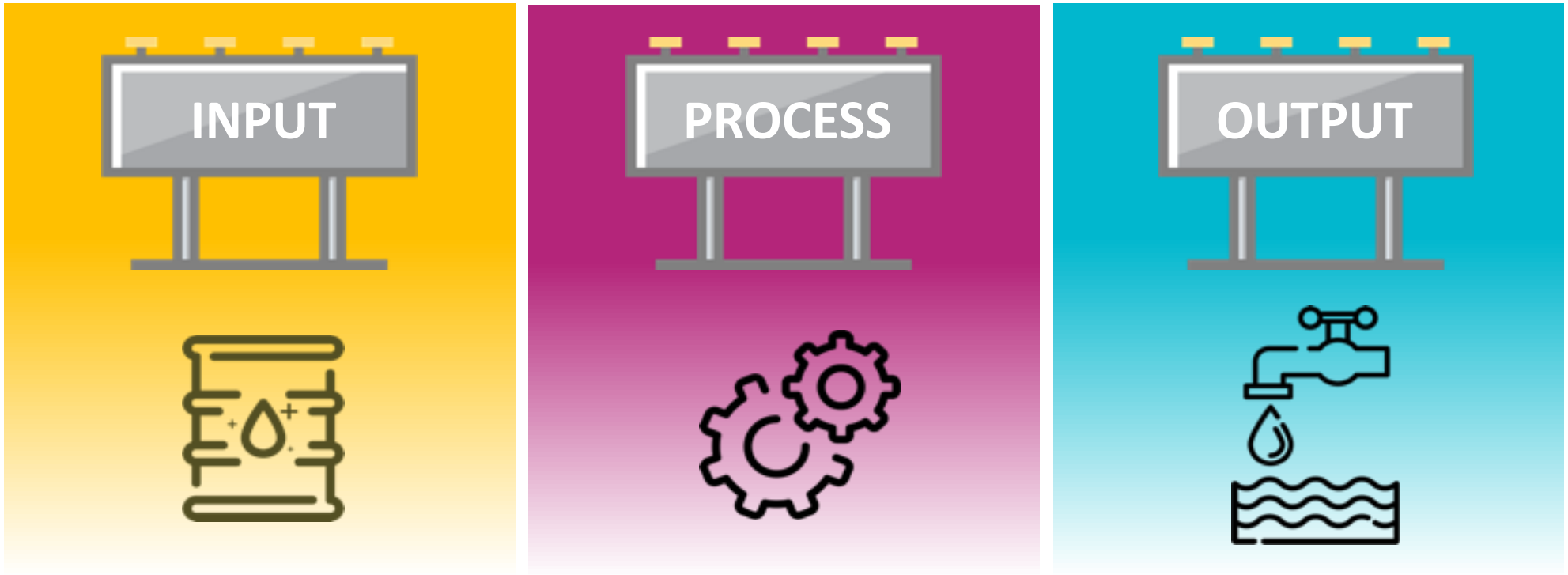
Driving sustainable chemical management best practices in the textile, apparel, footwear, leather value chains through

- **Collaborative engagement**
- **Standard Setting**
- **Implementation**
- **Innovation**

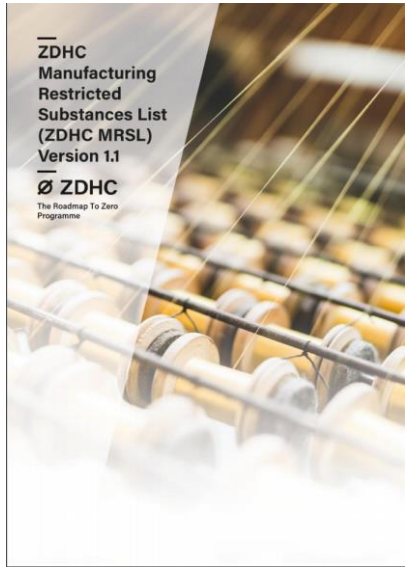
ZDHC



A holistic systems approach
to Sustainable Chemical Management

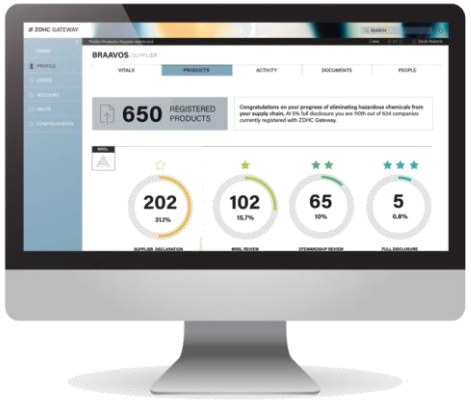


A holistic approach
INPUT management

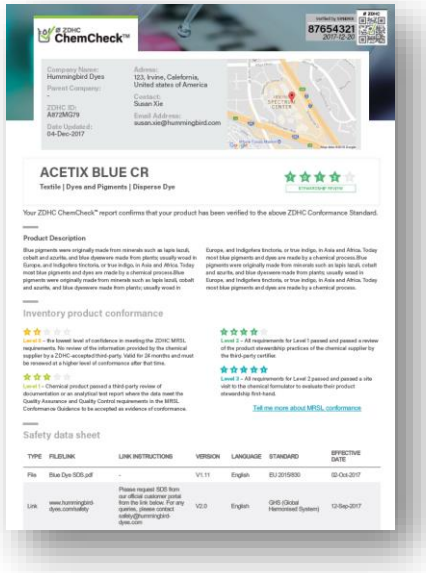


ZDHC MRSL

ZDHC MRSL Conformance Guidance



ZDHC Gateway - Chemical Module



ZDHC ChemCheck™

ZDHC InCheck™

Standard for management of input chemistry
ZDHC MRSL / version 2.0 to be released in February 2019

ZDHC

Guidance Section

what?

search

cas-number

search by number

export to PDF

export extended version to PDF

C.S textiles

Albini GROUP

A&E Innovate. Create. Deliver.

ARVIND FASHIONING POSSIBILITIES

Birla Cellulose Fibres From Nature

Ciel Text

Chapter 1 MRSL for Textiles and Coated Fabrics Processing

Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers

Potential Uses in Apparel and Footwear Textile Processing
APEOs can be used as or found in: detergents, scouring agents, spinning oils, wetting agents, softeners, emulsifier/dispersing agents for dyes and prints, impregnating agents, de- gumming for silk production, dyes and pigment preparations, polyester padding and down/feather fillings.

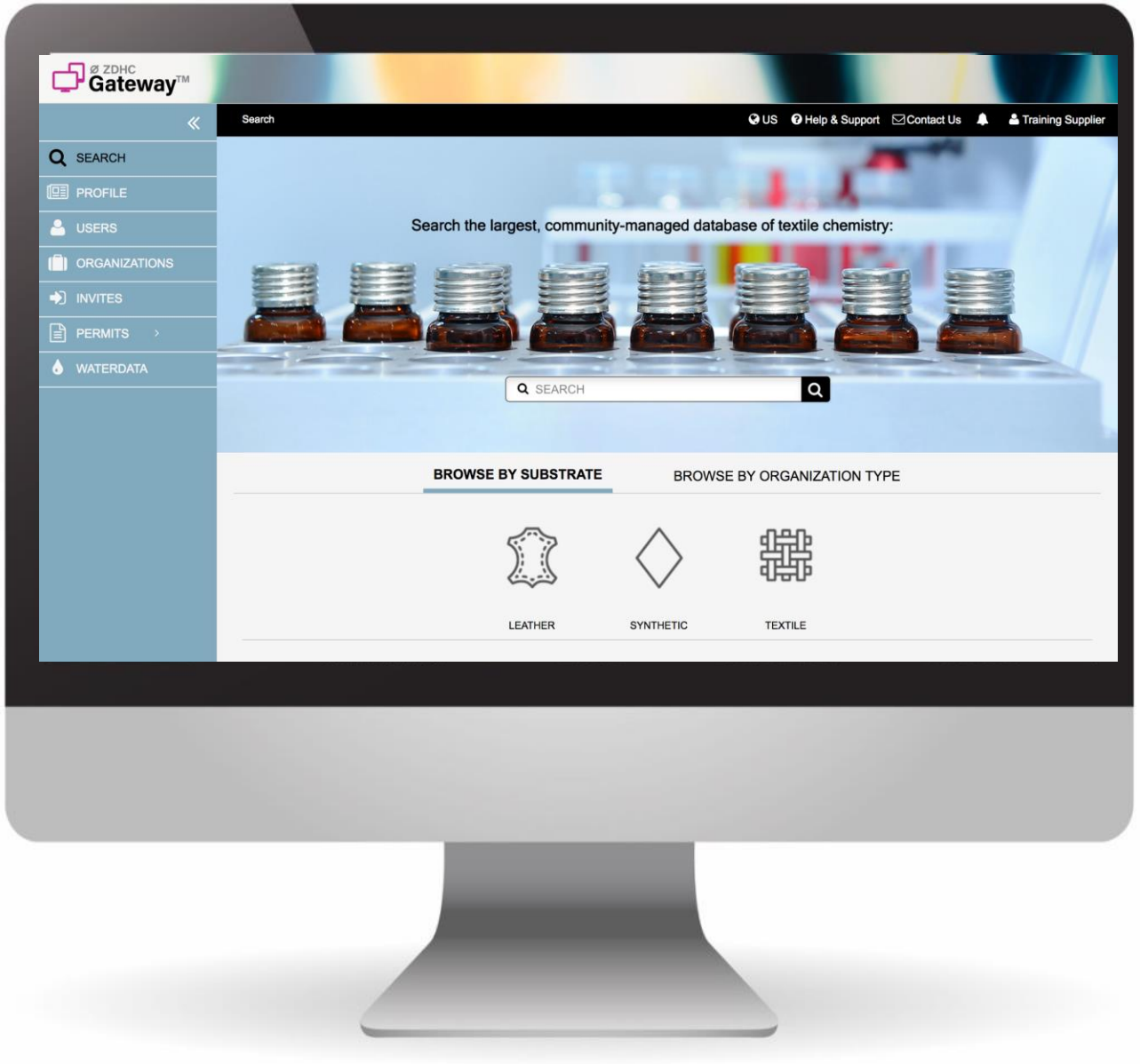
General Techniques for Analysing Chemicals
Liquid chromatography- mass spectrometry (LC-MS), gas chromatography-mass spectrometry (GC-MS)

Substance	
Nonylphenol (NP), mixed isomers	Guidance Section
Octylphenol (OP), mixed isomers	Guidance Section
Octylphenol ethoxylates (OPEO)	Guidance Section
Nonylphenol ethoxylates (NPEO)	Guidance Section

Chlorobenzenes and Chlorotoluenes

Potential Uses in Apparel and Footwear Textile Processing
Chlorobenzenes and chlorotoluenes (chlorinated aromatic hydrocarbons) can be used as carriers in the dyeing process of polyester or wool/polyester fibres. They can also be used as solvents.

General Techniques for Analysing Chemicals
GC-MS

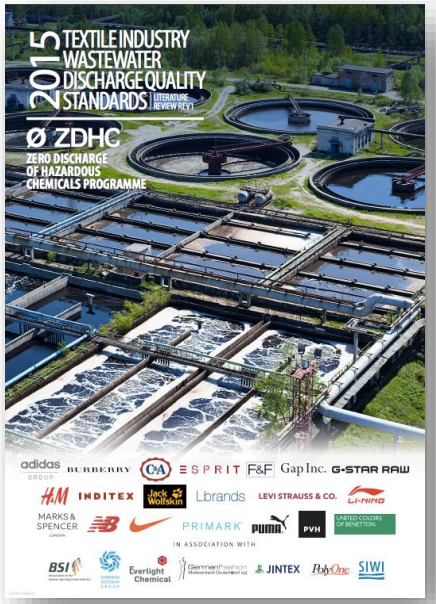


https://www.roadmaptozero.com/gateway/chemical-module/

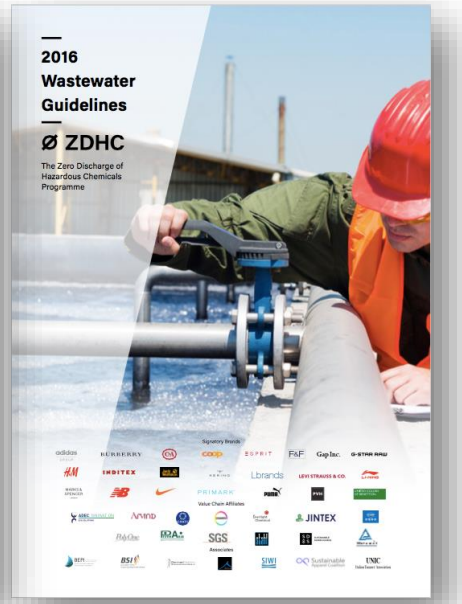
ZDHC Gateway – Chemical Module

THE world's largest database of safer and innovative chemistry for the leather, textile, apparel and footwear industry

A holistic approach
OUTPUT management

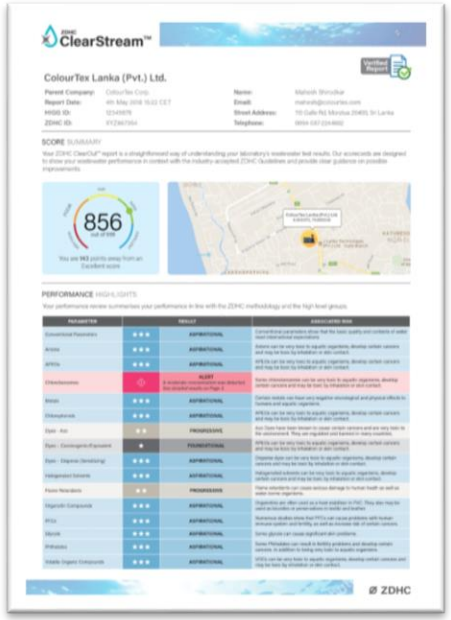


Wastewater standards literature review



Wastewater Guidelines

ZDHC Gateway – Wastewater Module



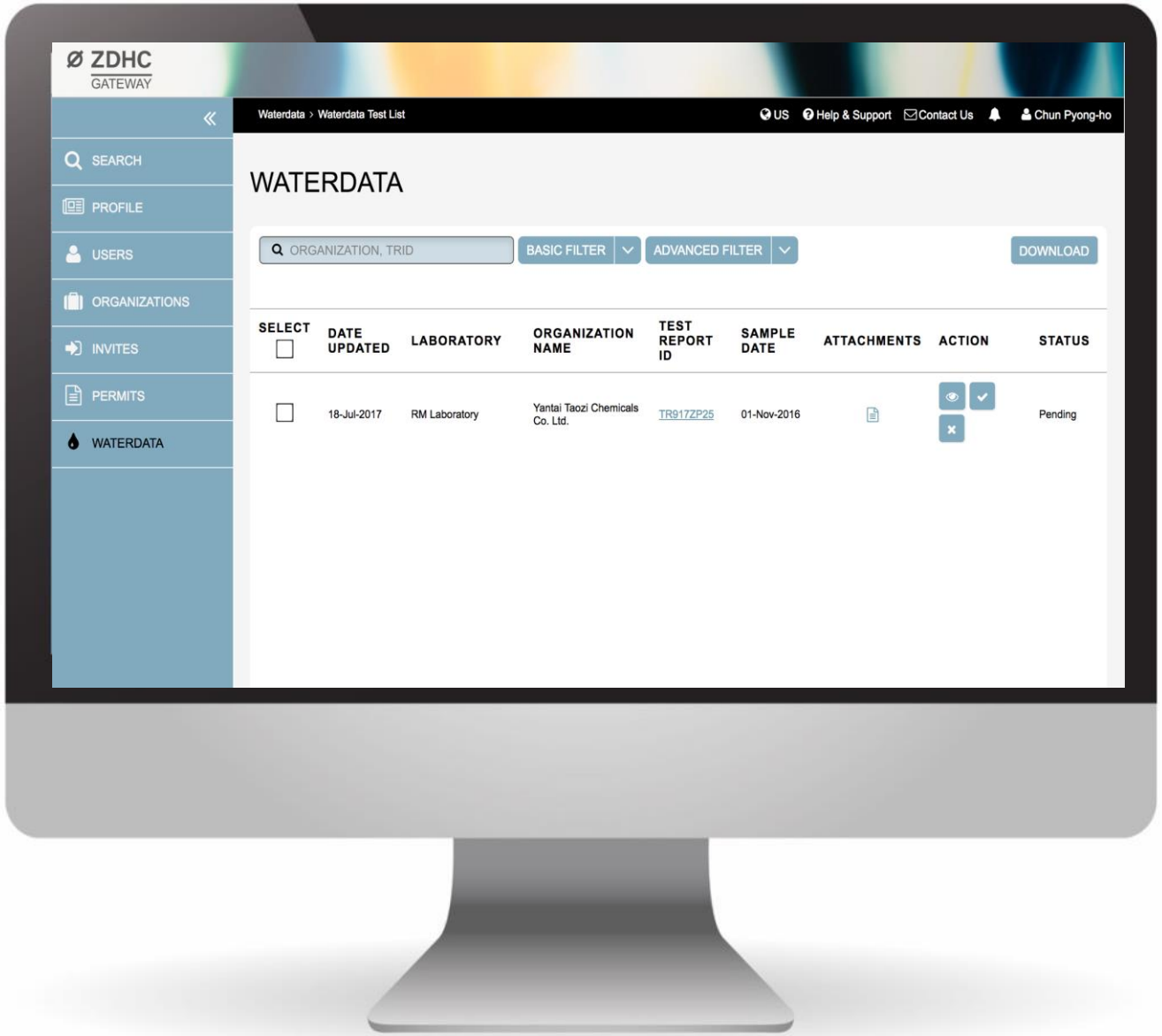
Ø ZDHC ClearStream™

Standard for management of output chemistry
ZDHC Waste Water Guidelines

- Industry alignment for a single, unified set of expectations for wastewater discharge quality
- Beyond current regulatory compliance
- Ensure that wastewater discharges do not adversely affect environment and communities

Two sets of parameters:

- **Conventional Parameters:** Limit values are classified into three levels: Foundational, Progressive, Aspirational
- **ZDHC MRSL Parameters (Priority Hazardous Chemicals):** includes those priority hazardous chemicals defined in the ZDHC MRSL



https://www.roadmaptozero.com/gateway/wastewater-module/

ZDHC Gateway – Wastewater Module

THE global online platform to register and share verified Wastewater test data against the ZDHC Wastewater Guidelines.

Wastewater
Public Disclosure portal (PDP)

Released in July 1st, 2018

WHAT DATA ARE WE DISCLOSING?

1. **Aggregated data, per facility (from Gateway)**
2. **IPE Detox data**

Phase 1

- July 1st 2018

- Anonymous Facilities. Only will show point on map with Green, Orange or Red status.
- Corrective Action Plan - limited to pdf upload by Supplier.
- Limited zoom to country/province level to protect anonymity of the supplier.

Phase 2

- In 2019

- Facility names to be potentially displayed, by facility choice.
- Brand connections

Scaling the agenda 2030 requires a systemic view on water

- Driving water quality by input chemical management
- Achieving water stewardship by process innovations
- Streamlining the measurement of water output quality

THANK YOU!

Contact us at
roadmap@zdhc.org

Learn more at
www.roadmaptozero.com

ZDHC

Panel Discussion I - Practical experiences from the supply chain

Shariful Hoque, Global Water Lead, H&M

Christina Muljadi, Sourcing Manager, Filippa K

Md. Zahid Ullah, Head of Sustainability, DBL Group, Bangladesh

Panel Discussion II - The role of policy, regulation and financing

Katarina Sundberg, Swedish Delegation for the 2030 Agenda

Stijn Van Geel, Manager Corporate Partnerships, Solidaridad

Pernilla Halldin, Global Public Affairs, Sustainability, H&M

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