

Case Study

Adopting safer chemical protocols in the fashion supply chain

SETTAVEX S.A. (EVLOX) Morocco

Context

As part of the regional EU-funded SwitchMed programme, the MED TEST III project supports industries in the Southern Mediterranean to improve their environmental performance and competitive advantage. Together with the Zero Discharge of Hazardous Chemicals (ZDHC) Foundation, a mission-driven multi-stakeholder initiative for the textile, apparel, leather and footwear industry, the United Nations Industrial Development Organization (UNIDO) has undertaken pilot projects in Egypt, Morocco and Tunisia to demonstrate the way forward for phasing out hazardous chemicals in the textile industry's value chain.

This project aimed to demonstrate and document the business case of implementing a sustainable Chemical Management System (CMS) in the textile-finishing industry in line with the ZDHC Guidelines. An initial training on ZDHC Sustainable Chemical Management and Wastewater Management for company staff was rolled out (2020-2021) targeting 37 production facilities in the three countries, followed by the launch of six industry pilot project (2021-2022), offering technical assistance to improve chemical and wastewater management systems in the production facilities. Additional 15 companies have been supported through training and capacity building actions, leading to the preparation of country roadmaps to extend the adoption ZDHC guidelines within the textile-finishing sector.

Company overview

Main production processes:

Spinning, Weaving, dyeing of yarns, printing, special chemical finishing of fabrics.

Number of employees: 500

Number of staff trained: 20

With an annual production of premium denim, ranging between 12-13 million meters, SETTAVEX S.A. (EVLOX) is one of Morocco's leading Moroccan denim producers. The production facility engaged in the MED TEST III pilot project is located in Settat, and the company is part of the global operating Spanish TAVEX EUROPE SL. Main drivers for joining the SwitchMed pilot activities were improving brand relations and better responding to rising regulatory agendas in the main export markets.

Improving chemical management systems, policies and safety procedures

At the beginning of the project, EVLOX's Purchasing Policy, Standard Operating Procedure (SOP) for the Wastewater and the Effluent Treatment Plant were absent, and the Chemical Inventory List (CIL) did not comply with the ZDHC Guidelines. EVLOX adopted the ZDHC CIL template, a standard for the industry. The ZDHC CIL helps suppliers progress in their knowledge about chemicals stored and used in their facility and how to manage them.

Through the demonstration project, the company management has established and reviewed these procedures, installed a flow meter on the Effluent Treatment Plant (ETP) and improved handling and storage while reducing the quantities of chemicals stored in the factory.

A chemical product management system, from purchase to chemical product packaging disposal, has been established, which includes a purchasing policy fully in line with the ZDHC CMS Technical Industry Guide (TIG). This has encouraged the registration of the chemical suppliers, which deliver chemicals to EVLOX, on the ZDHC Gateway. Moreover, the hazard evaluation of chemical products has become a key decision criterion when buying chemical products. Finally, the use of Personal Protective Equipment (PPE) has been enforced. All these changes are key features of the ZDHC CMS TIG, which leads to systematically managing chemicals safely and effectively, and to safeguard the workers and the environment.

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Overhauling our chemical management by using processes and chemicals that are less harmful will benefit working conditions, our environment and better position our products on the global market, especially since some premium brands have set insufficient environmental standards as an exclusion criterion from their supply chain.

Khalid Kairouch,
Production Manager

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As part of the EU-funded SwitchMed programme, UNIDO demonstrates in the MED TEST III project pathways for industries in the Southern Mediterranean to become more resource efficient and to generate savings for improved competitiveness and environmental performance.

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Relationship with chemical suppliers and registration of chemicals on the ZDHC Gateway

The chemicals used in EVLOX's production were, at the beginning of the project, to some extent already registered on the ZDHC Gateway, a world-renowned database of safer chemistry for the textile, apparel, leather and footwear industry. During the pilot project, EVLOX contacted ten chemical suppliers to request data sheets of chemicals that were not yet registered on the ZDHC Gateway but were still in use at the facilities.

As EVLOX continues to face challenges with suppliers over "basic" chemicals, they have invested considerable effort in getting chemical suppliers registering their products on the ZDHC Gateway. As this process requires additional tests to prove conformity of chemicals with associated costs to be paid by the chemical supplier, the relationship with suppliers did not always result in positive outcomes.

Nevertheless, by the end of the SwitchMed technical support project, the percentage of ZDHC-certified chemicals has slightly increased with **five new chemical formulators and 12 chemical products newly registered on the ZDHC Gateway**. EVLOX operates now in conformance with the ZDHC Manufacturing Restricted Substances List (MRSL), which is a list of chemicals restricted from intentional use by manufacturing facilities in the textile, leather and footwear sectors.

Chemical products registered on the ZDHC Gateway		Chemicals suppliers on the ZDHC Gateway	
Total and %	New	Total	New
60 – 65%	8	20	6

Substitution of high-risk hazardous chemicals

Substitution is the best solution for reducing health and safety risks from chemical use and discharge. However, substituting chemicals requires time. Therefore, other actions that can further assist in the reduction of risks should also be taken into account and implemented, such as, better handling and storage conditions, reducing the quantities of chemicals stored in the factory, better monitoring of wastewater testing, and better use of PPE. EVLOX has fully exploited all such available options and has adopted them into their business practice.

During the pilot, the EVLOX team performed a risk analysis using a methodology with the following formula:

$$\text{Risk} = \text{Gravity} \times \text{Frequency}$$

This formula was established to assign a hazardous level score to each of their chemicals. The gravity score, on the other hand, establishes if the product is registered on the ZDHC Gateway, and if so at which level. In contrast, the frequency score is evaluated based on the use frequency, the stored quantity and the quality of available PPE for each hazard. The resulting priority list revealed several instances for substituting chemical products. Although the substitution process was initially problematic for EVLOX, also due to the higher cost for alternative chemicals, EVLOX have, to this date, **managed to replace six hazardous chemicals** according to the adopted purchasing policy and the ZDHC MRSL Guidelines.

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Wastewater testing and conformity

Wastewater testing was not part of and not required during the pilot project. Still, it is an essential component of the ZDHC Guidelines and is often requested by international brands independent of their involvement with the ZDHC Foundation.

EVLOX participated in the wastewater testing rounds and detected non-conformities in both pilot companies. They will take the detected non-conformities into consideration and work on continuous improvements of their effluents quality. The company also invested in a new lab unit in the ETP department.

Brand relationship

EVLOX sees adopting the ZDHC Guidelines as an opportunity for reaching new and consolidating existing clients. By improving the ability to produce more sustainably, EVLOX meets the expectations of ZDHC Contributor Brands and other brands alike.

The achievements from the SwitchMed pilot project were also appreciated by several brands during their audits. Also, EVLOX has three new brand connections on the ZDHC Gateway, among them Hugo Boss and Benetton, which allows the brands to monitor their CIL and Wastewater performance.

After the finalization of the pilot project, EVLOX continued to show a high commitment towards the implementation of a CMS at their facility. They did the **ZDHC Supplier to Zero assessment and reached the Foundational Level, and are now working towards achieving the Progressive Level**. For EVLOX, continuous learning and training also is important the company has pro-actively requested a short training around the updated ZDHC MRSL V3.0.

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Thanks to the UNIDO project, we have new tools to show our ZDHC commitment to brands, such as ZDHC Training Certificates, Supplier to Zero Certificate (Foundational level) and ZDHC Clearstream. We made a step forward to improve and build existing and new customer relationships, which is key to building our future.

Khalid Kairouch,
Production Manager

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