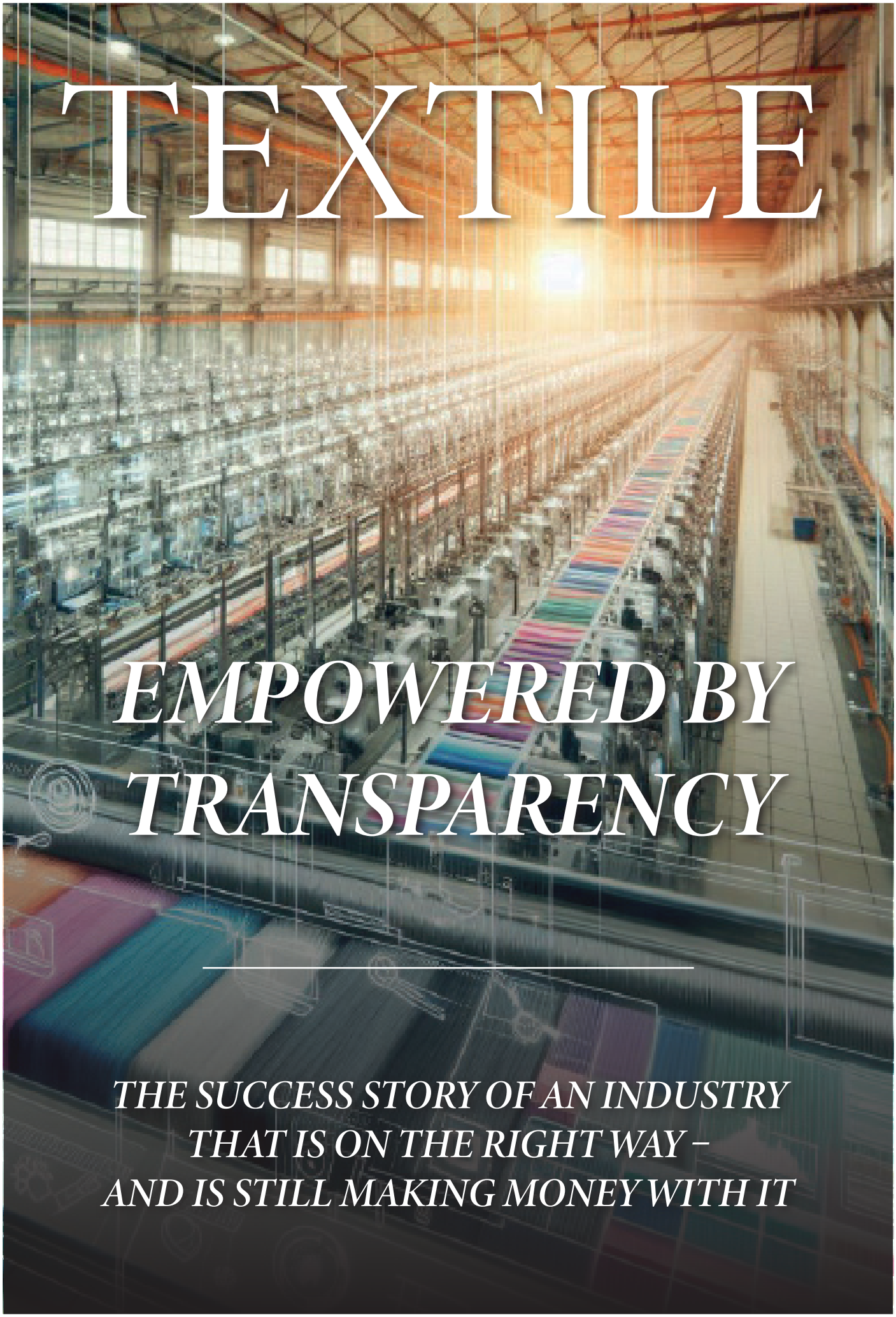


TEXTILE

EMPOWERED BY TRANSPARENCY

THE SUCCESS STORY OF AN INDUSTRY THAT IS ON THE RIGHT WAY – AND IS STILL MAKING MONEY WITH IT

Scenario Story 1

Empowered by Transparency

The success story of an industry that is on the right way – and is still making money with it

BY ECHT PROJECT CONSORTIUM

In 2040, chemicals traceability in the global textile apparel value chain is fully in place. This is possible thanks to the Digital Product Passport (DPP) that has been introduced globally and expands beyond the use phase of textile apparel. Reliable data on chemicals in products and processes is now recognised as an important aspect of business models in all value chains. Accordingly, the textile apparel value chains have made significant progress towards a non-toxic, climate-neutral, resource-preserving circular textile apparel economy.

Someone has to make a start

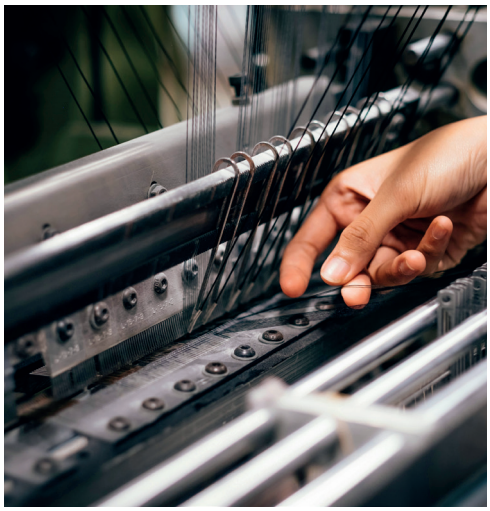
The starting point for this transformation was an active, critical public: concerned citizens, supported by NGOs, were increasingly informed about the dangers of hazardous chemicals for humans and nature and questioned the safety of textile apparel products they currently bought and used. 2026 marked the turning point and led in subsequent years to a continuous shift in consumer behaviour that demanded more substantiated information and, as a result, significantly extended the use phase of their textile apparel products.

At the same time, EU regulations on traceability and transparency were tightened, which include specific obligations to report substances in products and processes. Sanctions were imposed for non-compliance. Due to the globalisation of markets and, above all, the work in several projects and initiatives (e.g. UNEP, ZDHC), there has been a corresponding increase in harmonisation of other legal frameworks worldwide, which use EU regulations as a model.

In the EU in particular, strategies such as the "Green Deal" and its associated actions plans (regulations, directives, etc.) were largely enforced by national administrations, while public authorities cooperated effectively, creating significant pressure – and reassurance – on industry actors, who gradually changed their mindset and ensured greater transparency and a level playing field. A growing consumer awareness for more sustainable consumption, which enables corresponding business models, has clearly supported this. As a result, both the textile and chemical industries as well as related industry actors invested substantially in traceability capacities (both human resources and infra-structure).

Steps along the way

Against the background of this development, new structures for acquisition and dissemination of scientific knowledge of chemical substances



(including toxicity profiles) were created with the support of the chemical industry, which led to a significantly higher knowledge output and uptake from academia and industry.

Actual traceability was enabled and realised due to several factors: The first cornerstone were global, industry-wide traceability standards driven by industry actors on issues such as data, information provision, formats and data protection. This has been supported by continuous innovation in traceability technology that eventually had specific requirements which could be applied to efficient development processes. In line with industry demand, an efficient global infrastructure for traceability was created through standardised processes and formats as well as innovations in new business models and services. In practice, this window of opportunity was utilised by first movers who had prepared their value chains accordingly (data readiness). Industry associations and cooperations such as ZDHC supported the distribution of these best practices and the establishment of industry-wide rules that recognized the overall benefits of cooperation both within value chains and among peers.

The guide to success

The chemical industry was involved in every step of this process and was included in a feedback loop of information provision and product demand. The chemical industry actors that provided sufficient information about their chemical products, while ensuring high quality of data, had a market advantage as the textile industry depended on access to this information. A key to this system was the global introduction of the Digital Product Passport (DPP), which is both a physical (tracking technology) and a non-physical entity that expands beyond the use phase.

Finally, the global business ecosystem of chemical and textile companies has recognised traceability as a driving force for both financial success and environmental protection. Greater transparency enabled fairer markets and encouraged the trend towards more globally balanced location factors. While legislation initially was one of the primary drivers, the process has evolved naturally involving more and more stakeholders. This success story is not an end in itself, but continues to serve as a driver for all in the textile apparel value chains and as an inspiration for neighbouring sectors. Because in the end, the goal is a truly circular economy.

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Imprint

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Disclaimer

This document does not report on actual events and developments but is merely a fictional story of a potential scenario for the global textile apparel value chains in 2040. It is the result of the transdisciplinary research project “ECHT - Enable Digital Product Passports with Chemicals Traceability for a Circular Economy”. The project is funded by Interreg North-West Europe (2024-2026).

For more information visit: **https://echt.nweurope.eu/**

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