THE SUSTAINABILITY PLEDGE

TRACK IT, TRACE IT, WEAR IT!

UNITED FOR GREATER TRACEABILITY,
TRANSPARENCY AND CIRCULARITY
IN THE GARMENT AND FOOTWEAR SECTOR

UNECE

THE UNECE BLOCKCHAIN PILOTS

What? Results are now coming in from pilots launched in January 2020 to develop a blockchain system for traceability and due diligence in the cotton and leather value chains. Essentially tools to track products such as a t-shirt or handbag from raw components to point of purchase.

Why? The purpose of these pilots is to test, in a blockchain environment, the UNECE-UN/CEFACT traceability and transparency approach and standards adopted in late April 2021.

Who? Brands, manufacturers, cotton cooperative, leather producers, farmers, standard and certification bodies, DNA markers providers all took part, with representatives in Egypt, Germany, Italy, Switzerland, the UK and the USA as well as discussions launched with bodies in Asia, Australia and South America. In total, some 48 companies, partners and organizations took part in the cotton and leather pilots.

How? The blockchain system is an open-source Ethereum blockchain, which allows for the running of smart contracts and use of DNA markers. It is designed to guarantee data confidentiality in compliance with applicable regulations. Importantly, the application runs in both a web version and is being optimized for mobile applications to ensure accessibility to all partners in the value chain – including farmers and producers in emerging economies equipped with a smartphone.

The pilot tested our approach for identification and coding of key data at critical data points in the supply chain, to create an inter-linked and immutable record of provenance and composition.

What have we learned?

1. Commitment and collaboration in the value chain is key.
2. Open source, inclusive solutions and building capacity is essential - especially for small and medium-sized enterprises (SMEs).
3. Policymakers and regulators have a role to play. They should:

- Create the necessary **ecosystem** for engaging all stakeholders, enhance market access for small actors and vulnerable groups
- Devise tailored policies and regulations to support competition and facilitate the **connection** to other key technological developments such as AI, IoT, cloud computing
- Develop the necessary supporting frameworks for **data security**, **privacy** and **governance**
- Foster the use of data models for **standardized information exchange**, such as the UN/CEFACT e-business standards
- Set-up the right infrastructure to help build applications in a cost-effective and **interoperable** manner
- Support investment in **education** for entrepreneurs, civil servants and the general public.

UNECE is providing the tools and a framework of action that is free, open-source and ready for implementation to help the garment and footwear industry play a stronger role in making its contribution to the achievement of the UN 2030 Agenda and the transition to the circular economy.

Who Benefits?

CONSUMERS

Increased trust in sustainability claims.

PRODUCERS

Can embed provenance data into the raw materials they produce.

BUSINESSES

Cost efficiency led by digital archiving, reduced auditing, facilitated documents sharing.

Enhanced trust and communication with business partners and customers.

Immutable and trustworthy data storage with distributed access.

Interoperability with existing data management systems (based on APIs).

INVESTORS, FINANCIAL OPERATORS

Enhanced visibility and accountability for impact investment decisions.

REGULATORS

Improved visibility and access to reliable information on compliance with policy and regulatory requirements for sustainability and due diligence.

COTTON	LEATHER
Worldwide some **26 MILLION FARMERS** are growing cotton in **75 COUNTRIES** worldwide.	Leather making is responsible for employing millions of people worldwide, producing approximately **24 BILLION SQUARE FEET OF LEATHER** and generating in excess of **US$ 80 BILLION** each year.

RISKS

High environmental costs like pollution, pesticides and waste	Complex value chains with potential for the exploitation of people	Negative social impacts, like workplace injuries, exposure to hazardous substances, low wages, forced and child labour and gender inequality	Damaging and overuse of the planet's finite resources